EVOLUTION EXAMINED IN THE LIGHT OF REVELATION AND REASON



ALBERT P. SCHACK

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BY

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Messiah,—the Redeemer and Savior of the World";
etc., etc.



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PREFACE

THERE has been very much of misconception on the part of the religious world in regard to the elements of Evolution. Many would like to have its hypotheses disproved, feeling or believing that these were contrary to the Word of God, though they themselves were not sufficiently versed in science, or perhaps strong enough in the Word, to undertake a thorough examination and scrutiny to discover the real truth, and to unmask the sophistry of the Evolutionists.

But they no doubt have felt that they would like someone else to do it, if such a one could be found, who, combining a thorough education in natural science, and a thorough knowledge of the Sacred Scriptures, would be able to see clearly the sophistry palmed off or appearing as the truth, and to present the real facts of the case in an unprejudiced manner, and to make them plain to average minds, so that they could grasp them, and see for themselves that they were true; and on the other hand, that the gratuitous hypotheses of the Evolutionists were, by contrast, unreasonable and not true.

It was my good fortune to have been educated not only in good schools and college in New York City, but to have been, in addition, carefully educated in natural science—chemistry, geology, mining, mineralogy, metallurgy etc., in the School of Mines of Columbia University, New York City, as a Mining Engineer; and after some years' practice

6 Preface

in that profession throughout the United States, I studied and was educated for the ministry in a Theological School in Boston, Mass.; and after some years' experience in that profession also—as a teacher and preacher, I have since been a careful student of science and religion, doing whatever I could, by my writings as an author, in books and pamphlets, to instruct the world in both these departments, and as far as possible to unite the two in many practical and useful ways.

A few years ago, the lack of a work, and the demand for one, by some author capable, by sufficient education and preparation, which should rightly unfold the subject, and make it plain to the people, and at the same time withstand the scrutiny and criticism of all the scientists, kept pressing upon me, so that I finally decided, having been thus suitably prepared by education, as well as by a careful study of the specific subject in all its aspects, that I might properly undertake the work for the sake of humanity, and for the honor of God and the Divine Truth.

And so I began it, and finally finished it. The work must now, of course, be left to the judgment and acceptance of its readers. I simply bespeak for it the blessing of God, and that it may help and enlighten many souls and minds.

A. P. S.

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CONTENTS

CHAPI	TER		P	4GE
I.	The Spiritual and Natural Creation, and their Progress	•	•	9
II.	How Life is Inserted in Forms Adapted to Receive it .			15
III.	Essential Difference between Man and mere animals—all degrees of life. Development of lower into higher not p			21
IV.	No Essential Change Self-caused			27
v.	"Struggle for Existence"			32
VI.	The Entire Geological Series	•	•	35
	with Plan or Chart of same	•	36,	37
	Map of the United States and Southern Canada, shows southern limits of Ice thereon, and the successive morain	ies	-0	
	in its retreat	•	58,	59
VII.	The Unreasonable Hypotheses of the Evolutionists .	•	•	60
VIII.	The Origin of Man			71
IX.	Professor Louis Agassiz's Views	•	•	97
X.	The Future Lot of the Materialist			99
XI.	Warning to Students		. :	102
XII.	General Contents of the Entire Word of God		. 1	103
XIII.	Appendix: Concerning new discoveries—relics of supposed the Garden of Eden etc.; and the Ages and nations of the			10

EVOLUTION

EXAMINED IN THE LIGHT OF REVELATION AND REASON

THE SPIRITUAL AND NATURAL CREATION, AND THEIR PROGRESS

IT is believed by advanced Christians, that the opening chapters of Genesis in the Bible are symbolic; and that the first chapter is descriptive of man's regeneration,—that is, of his new or spiritual creation, with its progress from spiritual darkness to light, and through lower and higher life, ending with that which is truly human and godly called "man"; and that this necessary and orderly progress was specifically true in the case of the primeval race of men on the earth; and that it was true also of the Lord God the Savior Jesus Christ when He lived on earth, in the progress of "overcoming the world" by His labor in overcoming in temptation, and doing good, denoted by the six days of God's work in creation, followed by the seventh or Sabbath of His glorification and rest in the Divine Essence; and that finally it is symbolically true of every faithful disciple of His who follows Him and lives from His Spirit.

Granting this, yet in the natural or literal sense, since spiritual and natural creation should in general correspond, the first chapter of Genesis is probably a correct description of the general order of creation of the earth, and of the 10 Chapter I

gradual progress upon it—in their proper successive order—of mineral, or metallic, earthy and aqueous substances, and of vegetable, animal and human life, as far as it was possible to so present it in such a brief account, and so far as it was consistent with the representation of the six successive and progressive days or states of the human spirit, looking to its attainment of the Sabbath of peace or rest in God, the laws of symbolism requiring seven states to represent fullness and perfection, as we see in the seven successive degrees of the musical scale, which constitute all of sound; for this must have been the primary object of the account as there given in a book of the soul, which the Bible undoubtedly is.

Thus no doubt the earth was at first a gaseous body coming from the sun by centrifugal force or otherwise, like a comet, with a denser eye, as it were, as the front mass, concentration or condensation, and from which a lighter gaseous substance depended and followed, and to which this lighter and more diffused substance, or combination of substances, gravitated as they cooled and contracted, while the whole mass, both "eye" (or head) and "tail," flew far away from the sun, and came back comparatively near the sun in its orbit of revolution around it, as comets do now; and gradually the orbit became more nearly a moderate ellipse—approximating a circle, with the sun as one of the foci, and as it were approaching nearer the center, till the globe in its orbit reached its present state.

And it may be further admitted that it was the secondary intention to there present (in the chapter referred to) on the natural plane, a view of the general order and successive steps of the creation in six long periods or ages—called "days," as far as this was possible in such a brief account;

the apparent creation of the sun, moon and stars on the fourth day or period being a statement or description of their appearance to an observer supposed to be on the earth's surface, consequent upon the more or less dense clouds of vapor, first of mineral gases, and afterwards of excess of vapor of water, clearing away in consequence of cooling, and which had up to that time more or less obstructed the light, and had thus prevented the direct appearance of these heavenly bodies to such an imaginary observer, or the passage of their direct rays of light to the earth's surface.

Although the particulars cannot correspond or tally exactly in detail with the facts as shown by the fossils found in the complex geological strata, yet the general order of succession and progress from lowest to highest organisms in the vegetable and animal kingdoms—of plants, of bivalves and fish in sea and rivers—in salt and fresh waters, fowls in the air, and land animals ending with mammals (the vertebrate animals whose females suckle their young),—the general order of progress from the lowest to the highest orders of creation, as given in the Biblical account, agrees with the progress shown in the strata, as far as was consistent with its primary object of furnishing man with a symbolic account of his spiritual creation or regeneration in the very brief form in which it is given in the first chapter of Genesis.

The creation of fishes and fowls in water and air was effected in quantity when the water was cool enough and the air was free enough; and the creation of land animals in large measure was next in order, when the crust of the earth was cool enough, and when the other elements were prepared for them, although of course the creations which belonged to the former "days" or periods or ages were continued, or

else other more or less similar creations took their places,—
the preparation or former part of each period or age or
"day" being called "evening," and the latter part "morning";
and also finally man, that is, the first race of men—in the
Hebrew called "adam" or "ha-adam"—was formed, a proper
receptacle for, and endowed with, mind or soul, or free will
and rationality or understanding of truth, distinctly above
the mere animals.

"Adam" or "ha-adam" in the Hebrew is not a proper name, but merely stands for man or the man—literally "red" or "red earth," possibly referring to the origin of his natural earthly body, and symbolically denoting the good and warm loving nature of the first race,—"red" (the color of fire) signifying this; and it was so translated ("man") in the first chapter of Genesis in King James' Version of the Bible, and also in the second chapter through the 18th verse; but it was translated—or rather untranslated—"Adam" (though it properly should be translated "man" as before) from the 19th to the 23rd verses of the second chapter. In the Revised version, however, it is so translated, though in the third chapter and 21st verse it is also untranslated, and called "Adam," as also at the end of the fourth chapter and the beginning of the fifth.

God created man, we learn from verse 7 of the second chapter, by forming his body of earthy material, or material dead substances, called in this verse "dust of the earth (or ground), and breathed into his nostrils the breath of life (literally lives), and man became a living soul": not a mere animal, but a "living soul," the animal and the material body being only external to that soul,—that is, the soul pervades these.

Of course, it is manifest that God could not form the first men from the seed of man, for there were no men before the first, to produce any seed.

We read in Gen. II. 7, as just said, that "God formed man of the dust of the ground." Exactly how this was done, we do not know, and probably cannot know. Nor is it necessary that we should know. We may know, however, that his body could not have been made out of the solid rocks, but that it must have been made from materials comminuted, or plastic from those rocks, that is, from sedimentary soft or fine material, as He forms the body of every animal, and also every person, or human being, in the womb now. We must also consider that there were no mothers at the beginning of the race, to bear and suckle and rear the children; and so probably mature persons, or a number of persons, both male and female, had to be first created, as we read in Gen. I. 27 and V. 2, confirmed by our Lord in Matthew XIX. 4 and Mark X. 6 thus: "God created or made them from the beginning male and female." And since their bodies had to be made from fine substance or substances, therefore this could most properly be denominated, as it is termed in Gen. II. 7, "dust of the earth or ground."

This may be said to be no more wonderful than the creation which God is surely performing, through or according to His laws, every day, hour and moment, of innumerable plants, animals and human beings in the womb, from their respective seed or eggs as beginnings, and very many also, no doubt, from new seeds or beginnings created, and deposited in or on the earth, or in the water, by Him alone, as their only possible source.

Woman, being essentially the love of man, symbolizes

his own selfhood, or love and regard for himself; and so a "rib" (over his heart) was said to be taken out of man and made alive, and brought to him, to represent his selfhood vivified and made good and subservient by the Lord, and thus granted to man, as a helpmate, or as helpful to him. This portion of the narrative, however, could be only true symbolically, thus in this spiritual sense. This therefore shows and explains the character of woman—what she is,—essentially the love of man.

It may be said that the Lord Himself created His own predicted humanity in the womb of Mary successively from a very small or minute beginning like that of other persons, and it issued similarly from the womb in nine months as a babe. But in the first place it was not from man's seed, but from something resembling it created and deposited in Mary's womb immediately from the Divine or Holy Spirit (see Luke I. 35); and secondly, the Lord did this to comply as nearly as possible, with that necessary exception, with all man's conditions as already in process of operation (see Isaiah VII. 14; IX. 6; LIII) since the creation of the first men and women. That He could create persons originally, not from seed, may be admitted when we consider that He produced ready-made bread out of His hands, which His disciples took and distributed to the multitude, and that He furnished "good wine" not from the vine, and which Mary, His mother, believed that He could create from similar things which she must have known Him to create in cases of necessity previously in her own home at Nazareth. (John II. 1-11; VI. 5-14; Mark X. 27; Luke XVIII. 27.)

II

HOW LIFE IS INSERTED IN FORMS ADAPTED TO RECEIVE IT

ALL kinds of life, or specific principles, are *inserted*, and are not evolved or developed merely out of and by the forms themselves, although this may be the appearance. Successive new specific forms are first made; and life, or specific qualities or species of life or character or nature, in the sense of peculiar ability, are inserted into, and continued or secured to them according to their forms.

As an example or illustration of life entering and animating suitable forms, I have put a hair from a horse's tail in a vessel of water for some days, and have seen one end of it swell into a head, distinctly visible under a magnifying glass; and life flowing into it, which may be supposed to be everywhere imminent or outpressing from within, it became a snake or eel swimming in the water, because it was such a suitable sheath or form that such corresponding primitive life could inhabit and use it. This simple experiment can be tried by anyone, and the result will be seen to be as above stated.

But this is not so incredible as it might as first appear. I have seen in my own apartment in New York City, from under a sofa long undisturbed, and where dust had largely accumulated, a hideous crawling insect creep forth like a centipede, seemingly composed of successive little piles of dust. I quickly killed it. It is commonly known that out of stagnant pools and decaying substances proceed germs and insect life of various kinds. That is, noxious life receives a material clothing from those substances.

God can create new species in no other way, so as to separate the created things from Himself, or to make them individual. He brings together or constructs forms receptive of life from Himself, and then infils them with it. This must be and is done in every single instance of new species, even at the present time; and in the case of procreation, using the substances within the bodies of the parents. For example, a child in the womb is so formed or gradually constructed, though according to the seed, with tendencies within it towards good and evil, and also towards bodily forms, from both father and mother; and when born into the world, it is filled with conscious life, although while it is being formed, or made from imperfect to perfect, there is a kind of life inserted and acting; still, it is not till it is born, that it can be said to have the full life of a "living soul," that is, conscious life.

In order that there may be a firm foundation, God must begin, after the creation of suns and their atmospheres, with the lowest forms of creation in planets, that is, the mineral or dead forms, by condensation from gas and liquid. These He follows with the vegetable forms or species growing in the minerals, that is, in earths or soils from the minerals or dead substances; then with the animals in or on the mineral—in the sense of dead matter, as fishes in water, birds in air, and land animals resting on the earths, all being preserved or sustained, or at least principally, by means of the vegetable kingdom.

Lastly, man was created, who lives, as to his material body as a basis, on mineral or earths as ground to rest on, and for food and drink partly from minerals or inorganic substances, as salt and water, partly from vegetables, and

partly also from animals. But he has another and different form from any of the mere animals; and God has made him to be man or distinctly human, by inserting a mental and spiritual nature within the new form, as the highest or supreme or inmost part of it. He has indeed the lower natures also—the natural and sensual, similar to those of the mere animals; but these lower natures can never be developed into the higher, but should be kept in their places, and entirely ruled by the higher; and this is what is meant, in the primary or spiritual sense, by the plan and command of God in creating man, as recorded in Gen. I. 26, 28, that man, as identified with his higher or spiritual nature, should have dominion over all the animals, that is, over all the elements of his lower or animal nature or "natural man," symbolized by the "fish of the sea, birds of the heavens (or the air), and every living thing that moveth or creepeth upon the earth,"—that is, land animals.

The "fish of the sea," or of the waters below the land, symbolize in man the various kinds of desires, and efforts to think, in the lower or scientific mind, and concerning the objects or facts of the memory; the "birds of the air" (or "heavens")—above the land and water—denote the various kinds of desires and efforts to think in the higher or intellectual or rational mind, and the thoughts of reason; and the animals which live and move upon the land, symbolize the natural affections or desires and appetites of the natural man; and "man," as essentially a spiritual being, is commanded to govern all these, or to have dominion over them, and to use them for the sake of the spiritual man or region of his being, and thus for God and the Divine Truth of the Word.

On account of being endowed with free-will, or ability

to choose or to do good or evil, man was said to have been at first placed in a spiritual garden, called the "Garden of Eden" or of "pleasantness" or "delight" (that is, this was his first state), where grew celestial "life" and natural "knowledge," (called "trees"), eating the fruit of, or reliance on, the latter—to determine what was right or wrong, or good or evil—being possible to him.

Having this endowment of freedom to live from God or from self, by his wrong choice of its exercise he fell into the lower nature, but with the possibility still of returning into the higher. This latter return is regeneration from God, with man's co-operation.

All through our lives, if we are being regenerated, that is, if we are advancing spiritually, the same law and method of insertion of higher within lower things is going on. As we rise above lower motives and thoughts, and purify the lower nature in accordance with truths and principles or precepts or Commandments from the Divine Word, and by obedience thereto, God successively inserts a higher and higher nature, or motives, principles and life, within the lower, like soul within body; and thenceforth the higher pervade the lower, and use and govern them, or should do so. Purified lower principles, or lower natures, as said above, do not in such case develop into the higher; but they become servants to the higher, which are discreetly above the lower.

But can the Creator make every different form, or myriads of different forms, and insert a specific and different characteristic nature within every one of them? There is no difficulty here. Every distinct and good species must be first made by Him. It is just as easy for Him to make millions or billions as one. It is true that God permits every species after its creation to propagate offspring, for He has implanted this as one of the important functions of every species; and He must be well pleased that every species should be improved and perfected to the uttermost. But He knows that only a very limited modification is possible, and that radically new species are among the impossible things for us, or for any other creatures. He therefore always has done and always will and must do, the work of the original creation of each of such distinct species, without the intervention of any already-existing species.

It was one of the remarkable statements of the scientist and theologian, Emanuel Swedenborg, that evil animals, as wolves, tigers, venomous serpents etc., live or derive their origin from the nature and life of evil spirits in the spiritual world, which he thus regarded as being in close conjunction with the natural world, as the soul is to the body. And he also says that evil or noxious plants or vegetables, as for example the "deadly upas-tree," the virulent rhus toxicodendron or poison-ivy, rhus querca-folio or poison-oak, and rhus venenata or poison-sumach, the well-known nux vomica or strychnine, aconite, belladona, etc., which are used in medicine to absorb malignities or diseases, have their life or origin from the same source, as also poisonous minerals, such as arsenic and antimony. There certainly seems to be ground for this belief of the more or less direct or remote origin and continuance of such poisonous and noxious animals, vegetables and minerals in nature, when we consider that the Creator, being a God of Divine Love and Goodness, could not directly create any evil thing. We continually see that putrid and decaying substances furnish receptacles and spheres for the reception of noxious life, which seems to proceed out of them (see Exodus XVI. 20). That is, all life comes from God, directly or indirectly; but evil and poisonous life must result from that life perverted.

It is a law of divine order, that life or a living spirit is not denied, but is given to, and proceeds according to, the procreated seed and its naturally resulting form, whether that seed and that form be good or evil. In the latter case, it is perverted life. This is the law of freedom, by which God does not refuse to let the evil live, though He warns them, in the case of human beings, in His Word, of the awful consequences and unhappiness of such life, which He calls "death,"—"where their worm dieth not, and the fire is not quenched" (Mark IX. 48).

These living evil spheres thence descend, or are expressed, into the material world, where they enter, inspirit, or excite to activity, the corresponding substances there, whether minerals, plants or animals, as well as man, so that everything resulting is detrimental and harmful instead of blessing. This was the case with the Israelites, who by disobedience to the divine commandments, obtained a curse throughout their land: see Genesis III. 18; Levit. XXVI. 14-33; and Job XXXI. 39, 40. See also Matth. VIII. 28-32 for the effect of evil spheres upon animals; and Rev. XII. 12, 13, for their effect on human beings.

III

ESSENTIAL DIFFERENCE BETWEEN MAN AND MERE ANIMALS
—ALL OTHER DEGREES OF LIFE. DEVELOPMENT OF
LOWER INTO HIGHER NOT POSSIBLE.

FISH could not be developed from oysters. Animals do not differ essentially by forms or material substances; but by characteristic natures or instincts and desires and habits -higher or lower. Man could not have been developed from the baboon: but it is rational to suppose that bodies were first made for man or races of men somewhat like those of the higher animals, as the ape or gorilla, but of much finer, more delicate and perfect substance or combination of substances, structure and form, though of various degrees and grades, but a new and higher step in creation, adapted to the reception of a higher nature; and that the Creator inserted in those bodies—in the brains—a free will and understanding (with organic derivations, having sensation or feeling, throughout the body) as a soul, to know and receive and act from Him and to love Him, and afterwards in the later ages—to learn or read the precepts of the written Word and to conform his life to them. These things are not possible for animals. They have no internal mind, no appreciation of spiritual life, no thought of life hereafter, and consequently no eternal life; for they are not capable of regeneration. God addressed no beast for the sake of instruction, salvation or regeneration; Christ while on earth addressed none. The animal soul, analogously to the soul of the tree, though of a higher degree than that of the tree, must be dissipated after death. If it were not so, it would

be a crime to kill beasts or mere animals; and yet we continually kill them for food; and in the Sacred Scriptures it was expressly allowed, from the time of Noah, to kill and eat all beasts, birds and fishes, though not animal blood (see Genesis IX. 1-4), the Israelites being allowed to eat only those which were called "clean" (see Deuteronomy XIV. 3-20); and the permission to kill and eat animals may be also recognized from the institution of the Passover (Exodus XII. 3-9): only it was forbidden to eat or drink the blood, as in Deuteronomy XII. 23, 24 or the fat—see Leviticus III. 16, 17, that is, during the time that the church was in mere representatives, which it was before the Lord's incarnation,—since to eat these elements, which represented spiritual or heavenly truth and good, would represent the falsification and profanation of these holy things, and misusing them in their lives.

That the purpose or end of God was to create man, as the only being who was to be capable of eternal life and happiness, may be seen from Isaiah XLV. 11, 12, where it is written: "Thus saith Jehovah... I have made the earth, and created man upon it," where no other creature is mentioned, thus showing that man only was the important being and object of God's creation.

In Psalm CXLVIII, we have an exhortation to praise the Lord, apparently addressed not only to "angels" and "all people," but also to "fire and hail, snow and vapor, stormy wind fulfilling His Word"; to "mountains and trees, beasts and all cattle" etc.; and also it is said in Psalm CL, "Let everything that hath breath praise Jehovah (or the Lord)," with similar expressions in some other places,—as if inanimate objects and mere animals could do this. In the

spiritual sense, these expressions mean that every department and faculty in angels and men, from highest to lowest, should praise the Lord; but in the literal sense they must be regarded as a poetic way of saying that all such things and creatures as are there enumerated should render testimony and contribute to the praise of God, and to cause His Name to be revered by human beings.

In regard to the mention of beasts in the Apocalypse or Revelation, which seems to imply that beasts are in the spiritual world, that is, that they have gone or emerged there from this world, it may be said that the Apocalypse is a prediction of the state of the First Christian Church with its changes and deterioration, culminating in its most evil and corrupt and profane states, necessitating the Last Judgment, pictured however in pure symbols, and succeeded by the New and true, angelic and enlightened Christian Church, depicted or symbolized in the two last chapters (XXI and XXII) by the "New Jerusalem"; and it is there intended to depict, by the "leopard" and the false "lamb" who "spake like a dragon," for instance, both of these being described in the 13th chapter of that book, classes of people of the laity and clergy—in the decaying or corrupt Reformed church, who resemble or resembled those beasts on account of their characteristics,—as Herod was of the nature of a "fox," and was so called by our Lord Jesus Christ Himself (as recorded in Luke XIII. 32) although Herod was still a man, and capable of regeneration during his life in this world.

The scenery—minerals, trees and vegetation, and animals, such as are represented in the Revelation, and which must surround, or be near, societies of people in the spiritual

world, being spiritual, cannot be the spirits of the same gone out of this world; but they must be lower and higher forms, representative—or concrete images—of the characters, or thoughts and affections of the people or human spirits themselves; and they must be connected, as it were, with invisible spiritual cords to them. They must, therefore, appear with the activity of the special life of the spirits, and vanish when the thoughts and affections of the latter cease. The reason why they must appear practically or comparatively permanent in heaven and hell themselves, is because the thought and affections of angels or demons are correspondingly permanent. Still, they must vary to some extent even with them.

The soul of all animals is natural or sensual affection and appetite. They therefore look to the earth and to sustenance thence. At least it may be said, even in the case of what are sometimes denominated the "nobler animals" or nobler species, that they see or consider nothing above the natural realm—nothing spiritual; nor are they capable thereof. They can weigh or judge no motive, or radically change their life. The seemingly intelligent and noble traits exhibited by such animals as the St. Bernard dogs and some others, to watch over and preserve their masters and to save the natural lives of human beings when taught to do so, must therefore be given them, while they live, by the Creator for the use of man. The inmost soul of man, on the other hand, that is, the purely human life of which he is capable, is spiritual and heavenly affection. It is distinctly above the natural, as heaven is above the earth. There is, therefore, no ratio on the same plane between beasts and man proper, because a man's soul or mind, as such, is distinctly above that of a beast. Man is created in the image of God, as we read in

Genesis I. 26 and 27, and was enjoined to have dominion over the animals—v. 28; and this is reiterated by Paul (I Corinthians XI. 7 and Colossians III. 10) and by James (III. 9)—that man is made "in the image and after the similitude of God," differently from mere animals. Man has free will, and can do good and benefit others, or do evil and harm them; but a beast can be conscious of no such choice.

It is fair to say that, in a generation or during a lifetime, any sane man-Indian or negro, Mongolian or Hottentotcould learn or be taught to speak, and to read the Bible in some language, and be regenerated, though every one of course differently according to education and brightness, and consequent facility in learning, as is indeed the case with all the rest of the human family: but the point is, that they all could do it in time, after a fashion,—whereas the monkey, ape, baboon, chimpanzee or gorilla never can, because they have no adequate created form or vessel or receptacle in the brains, constructed there by the Creator, and hence could not receive therein the requisite qualities of mind or soul, which could enable them to do it. It is beyond belief, that is, incredible, and an aspersion against the goodness, justice and mercy of the Almighty, that if they could, it would be denied them, as it undoubtedly is. But all human beings of sound mind are capable of lower or higher regeneration—of loving God and the neighbor; all are in the image of God in this respect, that they have free-will and rationality to go above the natural or sensual realm, which not a single beast has. And it is a fact most significant, as showing the distinct line of demarcation which in the Creator's eyes exists, and was intended to exist, between man and the mere animals or beasts, that in Leviticus XVIII. 23, and Exodus XII. 19, a mixing of man with beast was severely forbidden as defilement and "confusion"; and it was commanded that all people who committed such defilement and confusion should be put to death.

It is incorrect, therefore, to say that man is an animal: but man is essentially a human spirit—a spiritual being, who has a lower or secular intellectual mind, and an animal or sensual or lowest degree of his nature, which he is to govern and control and keep under, with his material body, which his spiritual body inhabits while sojourning in this material world. Man is a little universe or "microcosm," as the ancients said,—from highest to lowest; but no animal is, because it lacks the highest planes; and his (man's) primal business and duty—so as to attain and sustain his proper sphere or place in creation, as said above, is to have dominion over all the lower things or faculties or propensities of his nature. The fact that he can, and in many cases does, allow his sensual or lower faculties to rule over him, and thus turns himself and created or intended order upside down, enables him, by the use of his God-given freedom and his inventive faculty, to become worse than any beast.

IV

No Essential Change Self-caused

By "natural selection," a species able to withstand changes of outward environment, or difficult or adverse circumstances, is supposed to remain; while others, not able or suited or fitted to endure such changes or hardships, perish and disappear. And by "sexual selection" it has been supposed that animals select superior mates in form and appearance, and thus produce superior progeny, while the inferior tend to remain unmated and to die without producing offspring. But even granting that this hypothesis might be true, no new species could be produced by it, but only superior individuals of the same species.

It is supposed also, that extensions or additions or substitutions are made in the structure, both of man's body, and of the bodies of the lower or mere animals, to suit adverse or differing circumstances; and by supposing millions of years as the time in which these additions or changes were produced, the evolutionist thinks that they could and did so occur or evolve.

But not the smallest addition or effect could be produced without an internal constructing and creative cause, no matter what unlimited time, even billions of years, were allowed for such change. It is absolutely irrational to suppose that nothing can produce something, no matter how advisable or needful it might be, or how outward environment or circumstances might call for a supposed useful appendage or addition to a form. Nor could any animal, or even man, of themselves, produce such things.

And yet when the Creator's hand, or internal causation according to order, is operating, as in the case of the tadpole transformed into the frog, for instance, or of the caterpillar into the butterfly, remarkable changes ensue in a very little time; and so in every case of births of animals, and growth and formation of flowers, vegetables and grains among plants, one year, and in some of the smaller species of animals much less time, suffices to produce the various successive transformations from beginning to end—from seed to fruit or harvest, and from embryo or egg to living animal, and in some cases to maturity.

The changes of the human embryo are sometimes adduced by the evolutionist as presenting some analogy to changes from species to species of animals, with the deduction therefrom that this proves that one animal higher in the scale was produced and developed from a lower, and in fact that a complete succession of changes have occurred with development, from the lowest animals to the highest, and even to man. This is the development theory of Darwin.

Since the nature of these changes is not generally known, and since some have supposed that the changes are from some lower form of animal, through higher forms, including the ape or baboon, to the final form of the human babe, I quote from "Human Embryology" by Keibel and Mall, Volume I, showing, by careful observation and diagrams, that no such succession of animal species or forms precedes the human form of the babe in the womb; but that there is simply produced at first a general form, chiefly of the head, in a horizontal position, and that this afterwards rises into a vertical position; and that the head and face, with trunk and organs, hands and feet, proceeding therefrom,

become more and more distinct, till the child is born as a living conscious human babe.

"From 12 to 60 days the form is called an *embryo*, the head from the neck lying horizontal till the 45th day, the features being indistinct and rude,—when it rises, and the hands and feet begin to appear. At the 60th day it becomes quite vertical, and hands and feet and organs become quite distinct; and the face and features also begin to be distinct, and the form is called fetus."

After that, it simply becomes more and more distinct and perfect till at the end of the ninth month, as a rule, it is born into the world, a perfect human child.

But the astounding fact confronts us that the marvellous successive changes of the human embryo and fetus even to the last supreme and most wonderful result—a human being born on the earth—are all executed and finished, as just said, within the short space of nine months, and entirely without the least consciousness or aid or co-operation of the embryo or fetus itself. The fact that these changes are occurring in succession gradually, though so quickly, does not show that God is making various animals one after another, but simply and solely that He is forming thus gradually, in every single case, an infant man or woman, which He so wonderfully does, in about nine months' time. And singularly enough, these marvellous metamorphoses of the human embryo or fetus, all proceeding in the same inevitable order to the determinate end, appear to be unwittingly supposed by the evolutionist to be successively and progressively self-causing, without being fashioned by the Creator's Spirit or power or design or wisdom—thus that these changes with their final supreme result are virtually without a cause.

Is it rational to think that these transformations were self-caused? Can dead matter cause itself to do anything? Especially can it produce orderly and wonderful formations?. Must not this be done by the operations of creative law directed by a wonderful and powerful mind? Is it the part of a rational being to suppose that the earth turns itself on its axis and travels around the sun with such precision that the time of beginning and end of a complete revolution can be calculated to the fraction of a second? Must not this be the work of an all-wise and all-powerful Creator? And in the cases of the exact occurrence and recurrence of eclipses of the sun and moon, and the revolutions of the other planets -mighty Jupiter and Saturn, and far-off Uranus and Neptune, and the myriads of suns and their probable planets all are so wonderful and so evidently the work of divine and infinite wisdom and order and almighty power, that it has been said that "an undevout astronomer is mad." And is an undevout observer of the wonderful phenomena, and of the creation and transformations, adaptations and bountiful provisions, with their order and wisdom on the earth, any the less mad? It may be that it is the part of rigid or hidebound or short-sighted so-called science to renounce and try to bar out God from His works, of Whom our Lord says that "a sparrow doth not fall to the ground without Him (Matth. X. 29), and of Whom the Psalmist says "Thy hands have made me and fashioned me" (Ps. CXIX. 73; see also John I. 3), and "Thou openest Thine hand, and satisfiest the desire of every living thing" (Ps. CXLV. 16), and that "every beast of the forest is His, and the cattle upon a thousand hills," and that "the world is His, and the fullness thereof" (Ps. L. 10-12): but it is not the part of broad and far-seeing rationality or wisdom, or genuine science, to try to do this.

The "survival of the fittest," that is, the strongest and most comely, as a consequence of "natural" and "sexual selection," has been thought by evolutionists to have been the means whereby improvement in races or species of animals has come. This is supposed to have resulted from the superior excellence of form and size and strength of the few which remained or survived, while the many perished; and also by the stronger attacking and overcoming and destroying the weaker.

But evil beasts are the ones that fight and often conquer and destroy. The good or harmless do not. If they fought at all, it would only be to defend themselves; and thus there would naturally be a survival of evil beasts, and not good, and thus of the fierce and cruel; and so the evil-natured animals would succeed to the mild and gentle animals, if the survival of the strongest or aggressive animals were the rule. Mixtures, or cross-breeds, or products of different kinds of animals, vegetables and fruits, as the mule from the horse and ass, and the loganberry from the blackberry and raspberry, are not natural products, but from man's mixing them, or from grafting or pollenization.

V

"STRUGGLE FOR EXISTENCE"

DARWIN and others have calculated that in 750 years the living offspring of a pair of elephants unchecked would number nearly 19,000,000; that if each egg should produce an adult, a single pair of codfish in 25 years would make a mass larger than the earth; and that the invisible infusoria, if continued at their most rapid rate of division or increase for 38 days, would produce a mass of protoplasm equal to the sun in size. Darwin and his followers—the evolutionists—argue from these premises or hypotheses that the strongest must have struggled to remain, while the weaker animals, the vast majority, must have died, as being unable to resist the adverse circumstances of climate etc., and the combat of their fellows to obtain limited quantities of food.

In the first place, such estimates as the above are foolish, and the results of the estimates impossible of realization, inasmuch as the supposed enormous aggregates of material produced from the species named, would be manifold greater than the material of the earth's surface and its surrounding atmosphere, from whence it must be derived. The estimates and belief are however on a par with the vain and irrational method of thought of the evolutionists in assuming that results may be produced without a sufficient operating cause; and that outward changed circumstances can somehow ensure a needed or desirable change in an animal, which cannot itself create or produce anything,—as if the plant could grow of itself without the heat and light of the sun, or without the Creator, or as if something could be produced from

nothing. All such suppositions are of course absurd (see Luke XII. 25-28).

But such suppositions are not necessary, when it is recollected that the locations and areas of land and water have changed in many places, the beds of the oceans being elevated, so that they have become dry,—thus exterminating large numbers of the fish, while the land was submerged,—thus exterminating many of the land animals; and in each case, new species must have been afterwards created, and some of these after death fossilized. This was the case notably at the close of Paleozoic or Ancient Time, and at the end of the Mesozoic or Middle Time, and prior to the Cenozoic or Recent Time: see the schedule or chart of the Geologic Ages, Eras and Periods, etc., on pages 36 and 37.

Finally, when even in our own time, such violent catastrophes or cataclysms occur, as within a few years have taken place at Galveston, Texas, at San Francisco, Cal., and at Messina, Sicily, submerging and destroying by tidal wave, earthquake and volcanic eruption, large portions of the land, and many lives of animals and human beings, it would seem—it is most likely—that in ancient geologic times, when changes by elevation, subsidence and submergence, were frequent, that vast quantities of vegetable and animal life were swept away, and new species were begun, some of them being continued into succeeding ages; but others of them were laid down in the strata or destroyed, never to rise or be seen again.

Dana in his Geology, attributes this disappearance, or these exterminations of life at the end of Paleozoic Time, or that of Ancient Life, when the Appalachian Chain was raised, to

- (1) a colder climate on land, and colder water destroying the marine species living in the waters; and
- (2) to earthquake waves produced by the mountain formations or elevations. Incalculable violence and great surgings of the ocean, which occurred and were often repeated during flexures miles in height and space, and vast slips along newly opened fractures, would have surely resulted in the devastation of the sea-border and low-lying land of the period, and the destruction of their animals and plants. The same waves and earthquakes swept over and befel European land and seas. These times of catastrophe may have continued in America through half the following Triassic Era, for fully two-thirds of that are unrepresented by rocks and fossils on the Atlantic border.

Similar disappearance of species and large marine exterminations by cold of the Arctic regions, and ocean currents flowing from them southward, and earthquake waves due to the elevation of the Rocky Mountains, took place at the close of Mesozoic Time, or that of Middle Life.

VI

THE ENTIRE GEOLOGICAL SERIES

To enable the reader to appreciate, with some degree of clearness, the foregoing and the succeeding remarks in reference to the successive geological formations, and the possible lengths of time which have been calculated for them from the thickness of their strata and the varying rate of their subsidence, from 1 foot in 1000 years to 1 foot in 5000 years, a scheme or schedule is here presented, which may be found helpful to refer to, and as just said, to assist the mind of the reader. The thickness of the formations or strata have been taken or calculated from actual measurements of their maximum thickness; and though not absolutely correct for all localities, may be considered fair approximations and averages.

WORD OF EXPLANATION FOR THE READER:

Since the Chart, with its two parts, which now follows on its two opposite pages, is the unique design of the author, and impracticable or very difficult for the printer or engraver to reproduce or imitate, it was thought best to have it photographed and reproduced from the author's own original; and for the same to be done in the case also of the Map with its two parts on opposite pages which will be seen further on, since the author desired the illustrations to be correct for the reader's mind, rather than merely more perfect in external forms or type without such correctness.

TIME OR AGE		ERA	PERIOD	Maximum Length Depth of Strata of Tione in Feet. in Years
>	of Recent Life	Buckey Mar	Recent Champlain	Sudden Cold 9,000
			Glacial	Ice (2500' Probably about 2000 thick
		Reytian of	Pliocene	200 5 5 834 61 4 6. 5 8 6.
			14.	17. 17 to 10 m.
			Eacene	= 1.275 to 15 mi.
*	of Middle Life	ا ا	Misser	Say 2200'l
		Cretaceouls	Lawer	= 11 m 14,500 sd. 25/2m. N sh.sc. -44/2m.
		Jurassie	Colitic Liassic	7001 381 7 247 347 56, 200,000
		Tricessic	Upper	Say Housti
			Middle	6000 gtyita 26m.
			Lower	6 m.
	Ancient Life	carporie	Permian	Pa.= 2194 L.
*0			Carbon.	6424 sal, sh., coalte. 26/2m
			iterous.	Wasatch Mts 41 m.
			Sub-Carban- iferous.	70,000,000
		Devanian		13,000 'Scl. 12 12 m. to E
		silvrian	Upper	1050 sh: 5m 93,500,000
			Lawer	1200 sd 1,2 m. 3 you l.
	40	Cambrian	Middle	4250 l 11/4m. about
			Lower	3456 sd,cl. 4 25,000,000

el. clay; sd. sandstone; sh. shale; l. = limestone;
s(l. = silicious; argaargilaceous; qtzite = quartzite;
m. = million years; Pa. = Pennoylvania.

REMARKS.

Enormous mammals (twice weight of modern elephant "mastodon"- 10.13' high and 12-25' long) suddenly appear,
and soon after disappear, - dug out of marshes, in which
they had been mired or suddenly frozen in Arctic ice
Men first appear in numbers.

Alps Mts. raised ; Rocky Misa Sterna Newsda Mt
The Monkey tribes first appear
Transfer Whales in seas before close of Eocene.
Rocky Mts. elevated , Sierra Nevada Mts. (Cal) raised.
Monstrous Reptiles created.
Monstrous Reptiles created. Eng
rifery Pally fights is to did
ች ያ ች ም ች ያ ች ያ ች ያ ች ያ ች ያ ች ያ ች ያ ች ያ
Appalachian Range (comprising Alleghanies, Reptiles beginners)
Plants: Upper Coal Measures, Marine Fishi Fern-Trees. Lower Coal Measures, Marine Fishi and Insects
VertebratcFishe
Plants - still lowest: Animals: Animals: Algae or Seaweed. Snails, Mollusks Corals, Trilobite:
Algae or Seaweed. Swalls Insects
and Fishes.
Lowest Plants: Lowest Animals:
Algae or Seaweed. Sponges, Corals, Worms, Mollusks etc bivalves.
Adirondacks raised; and Green Mts. of Vermont

The Archæan Age or Time includes merely the first solid crust of the globe, or rock of granite and the like, cooled, and so solidified, first from the outermost of the planet's gaseous and afterwards molten spherical mass or envelope, and successively added to downward; so that it is practically impossible to estimate the time of its formation with any degree of reliability.

But in the succeeding Ages, in the Paleozoic and Mesozoic Ages or Times, and in the Tertiary Era of Cenozoic or Recent Time, the deposits being sedimentary beds laid down by water, and added to therefore from below upward from the primary Archæan rock, the thickness of the *limestone* has been carefully found—measured and noted,—laid down slowly under the sea, and a rate of subsidence allowed of 1 foot in 5000 years; while in the case of other kinds of material, as sandstone, shale, silicious and argillaceous materials—laid down from rivers or fresh water, the same care has been taken to find their maximum depths; and a swifter rate of subsidence allowed, as suggested by actual observations of the depth of debris brought and laid down in a given time by several well-known rivers of the world, such as the Amazon, Mississippi, etc., of 1 foot in 1000 years.

In the Quaternary Era, in the Glacial Period, the thickness of ice is estimated to have been 2500 to 6500 feet, and the moraine matter is 4000 to 5000 feet; and there appeared to have been in North America, as reckoned by some, five successive ice invasions from the north, in the region of Labrador on the east, and Hudson Bay on the west, as follows:

- (1) the "sub-Aftonian or Jerseyan," to Iowa and New Jersey, say 950 miles;
 - (2) the "Kansan," to Kansas etc., say 1000 miles;
 - (3) the "Illinois," to Illinois etc., say 950 miles;
 - (4) the "Iowa," to Iowa etc., say 850 miles;
 - (5) the "late Wisconsin," to Wisconsin etc., say 850 miles.

Total, 4600 miles,

each invasion being succeeded by a retreat, that is, by the ice melting: hence, say $4600 \times 2 = 9200$ miles ($\times 5280$ feet to the mile) = about 48,000,000 feet, invading and receding, possibly at the rate of about 200 feet per year, lasting therefore about 240,000 years.

This rate of 200 feet per year for the average time of the invading and receding of the ice in America, as well as in Europe, was as late as about 1890, regarded by some scientific men as about correct, and none too slow, thus making the time of the Glacial Period or Epoch, as said, about 240,000 years or more.

But since then, by estimates of the rapidity of movement of the glaciers or ice-fields in several places, both of invasion or accumulation, and of recession or disappearance by melting, these have been considered by careful scientific observers to have been effected very much more swiftly, in fact surprisingly so, as of the great Humboldt glacier of the Greenland ice-sheet, whose velocity, determined by Danish surveyors, has led to an estimate of an average of the Glacial Period of about 1 mile in 8 years, which would make the time of invasion, for an average of 1000 miles, 8000 years, and for the recession by melting 8000 years additional, making the total time 16,000 years. This is northeast of North America.

On the northwestern extremity of North America, in Alaska, the Muir Glacier retreated from 1886 to 1906, that is, in 20 years, 7 miles, or about 1 mile every 3 years.

And according to Dr. Warren Upham, who for many years was engaged by the state of Minnesota, the United States Geological Survey, and Canada, in surveying the Red River of the North, the entire time occupied by the retreat of the ice from the Canadian border to Hudson Bay, about 500 miles, was about 1500 years. For an average of 1000 miles (that is, 500 miles from the southern limit to Canada) the time would be according to this estimate 3000 years. Supposing the advance to have been equally rapid, the total advance and retreat would have been effected in 6000 years. But supposing the advance to have taken 4 times as long, or 12,000 years, the total by the same method would have occupied 15,000 years.

Furthermore, as will be presented and explained with the Map of the United States and Southern Canada, the idea of more than one entire advance and retreat of the Ice from Labrador and the territory around Hudson Bay to the extreme south, and return therefrom, say on the average about 1000 or 1200 miles, is probably fallacious; the entire time of the Glacial Period from beginning to end of advance from north to south over this distance, and retreating by melting from south to north over the same distance, may be regarded in all probability as about, or not over, 20,000 years, as will be explained further on.

It is also believed that in the other continents, in South America from the Andes etc., as in Europe, and in Asia from the northern mountains there, the Glacial Period occurred in about the same time, and was performed with the same rapidity, namely in about 20,000 years.

Since then, including the Champlain Period, the time—about 7000 to 9000 years—has been estimated from the observed and estimated rate of recession by wearing away of material (at 5 feet a year) of Niagara Falls from Queenston Heights to their present position—7 miles, or about 36,000 feet, making the elapsed time about 7000 years, because this cutting must have been done since the Glacial Period, because the gorge or channel was then—during that Period—filled up with ice and the debris from the ice; and from the recession of the Falls of St. Anthony from the junction of the Mississippi River with the Minnesota River below Minneapolis to their present position—10 miles, or about 53,000 feet (at 6 feet a year), making the elapsed time about 9,000 years.

The entire age of the globe since the solid crust formed, that is, after the Archæan Age, to the present time, from the estimates as given in the schedule, would be from about 153,000,000 to 207,000,000 years.

To the above I will add the following information, with Map of United States and Canada:

In regard to the cause of the Glacial Period and its ice,

Professor G. F. Wright in his work on "The Ice Age in North America" says:

"The Glacial epoch or period was a catastrophe resulting from the culmination of the effects of slow moving causes leading up to it in the latter part of the Tertiary Era, when the vast continental uplifts were taking place, not merely in the Northern Hemisphere, but throughout the whole world.

"The Glacial epoch was pre-eminently of wide-spread increased precipitation, and lower temperature. This great increase in precipitation, and high elevation, furnishes us with adequate cause for producing the peculiar gravel deposition of this age.

"Glacial ice was over Europe as over America, southeast from Scandinavia to Russia and southward to the Carpathian Mts. in Hungary about 1000 miles, and also from the Laurentian highlands (or Mountains, from Labrador to the Arctic Ocean) over the Great Lakes to Southern Illinois, and westward to the base of the Rocky Mts." about the same 1000 miles (from north to south), the advance occupying possibly 10,000 years. If we allow the same time, 10,000 for retreating and melting, the total would be 20,000 years for the Glacial Period.

"The enormous load of ice pressing down on the strata below, would produce a subsidence of 600 ft. at Montreal, 1000 ft. in Labrador, and 1500 to 2000 ft. in West Greenland and Grinnell Land.

"When the abnormal load of ice had been removed, the elevatory or upward pressing forces reasserted their influence, as they have since, raising portions of the region still higher than they had formerly reached. But at the close

of the Glacial Period, there was a depression in New Jersey of 200 feet, and more and more going north.

"As to volcanic eruptions, the sudden melting of vast masses of glacial ice by outflowing streams of lava seems to have given a unique character to the destructive agencies of the period.

"The Sierra Nevada Mts. in California were mainly uplifted during the end of the Tertiary and the beginning of the Glacial Epoch."

Professor Bowman says that "from the rate at which glaciers melt away in Alaska, and of the enormous increment of water furnished by the melting ice to the streams which flow from the ice-covered drainage-basin, there is nothing to indicate antiquity of more than 10,000 to 12,000 years."

"The Continental glacier disappeared from North America not over 7000 to 8000 years ago; and its disappearing prior to that proceeded at a rate probably several times as fast as its growth had been." This however is given merely as an opinion possibly formed from the present rate of melting of the glaciers of Alaska.

In regard to the time of volcanic eruptions, generally these have occurred and been completed in less than one year. We can see this from the case of Mt. Vesuvius, east of Naples, Italy. Since 79 A.D.—a number of eruptions have thus occurred: (1) in 203 A.D., (2) in 472, during which ashes were carried as far as Constantinople (about 600 miles), (3) in 512, also in 685, 983 and 1066. In this last year Pompeii was buried under a thickness of 20 feet of loose ashes, and Herculaneum was covered with a torrent of mud. In 1621 the villages at the base of Vesuvius were

covered with lava and torrents of boiling water. Again eruptions occurred in 1766-7, and in 1770. In 1779 showers of ashes, scoriæ and stones were thrown to a great height, and streams of lava passed down the sides of the cone. In 1794 another violent outburst destroyed much of the town of Torre del Grece, and in an eruption of 1822, the mountain is said to have lost 800 feet of height; but most of this last has been made up by subsequent eruptions.

Another remarkable eruption took place in May, 1855, and a series of outbursts began in 1865. More recent eruptions occurred in 1872, 1878,—80,—95 and 1906. In the last there was a consequent destruction of life and property.

"It seems not unlikely that on certain days of its eruptions in May and August, in the cataclysm of Krakatoa the extruded material must have measured not less than 4.3 cubic miles; and in 1815 from Temboro on Sumbawa on Sunda Island in Malaysia, 100 times that must have been thrown out. From Mont Pelée on the island of Martinique, the southern island of the West Indies, similar eruptions occurred in the years 1762, 1851 and 1902. The last was tremendous, chiefly of ashes; and it was said to have more than equalled the quantity of sediment discharged by the Mississipi River in a full year's time." Thus we see that as a rule every eruption has taken place within one year.

As to the auriferous gravels of California (from the Sierra Nevada Range), Prof. J. D. Whitney, former geologist of California, says that "the thickness of these in places is 400 feet in horizontal stratified layers, made up of moderate-sized boulders of the metamorphic rocks occurring in the region, mixed with water-worn fragments of unaltered shales and sandstones." He says "the deposit near San

Fernando Pass and north of it seems to resemble Pliocene strata, of Tertiary Era. It was deposited before volcanic action ceased in this region, for a stream of lava from the north has flowed over it in one place." But this does not show either the time of the deposition or the time of the flow over it of the lava. As has been shown just above, the lava in all probability was exuded by volcanic eruption easily within one year, and the gravel deposits probably were rushed successively down, to build up the 400 feet more or less, in say 400 years.

Professor Whitney says: "Deposits of gravel are rolled and water-worn fragments of rock."

It is reported that in California the volcanic eruptions were repeated, and aqueous invasion in the meantime piled up, between these, gravel, sandstone, etc., 200 to 300 feet or more. This took a long period of time, but as we have said, hundreds rather than thousands of years may have sufficed for this piling up.

It seems that at the time of the rising of the Sierra Nevada and of the Rocky Mountains, and all the northern mountains and hills, no doubt several thousands of feet, the consequent extreme cold brought on the glaciers. This was all over the northern latitudes of the earth, not only in North America, as appears on the large Map of the United States and Canada, but also in Europe, in Scandinavia, France, Germany and the Alps, and in Asia, and perhaps in South America along the Andes, etc. This is not difficult to understand when we consider that the earth revolves from west to east every 24 hours.

Although not exactly alongside of the line of moraines shown on the map, yet the occurrence was practically at the same time, since the great elevation or elevating was of the same nature, and the ice came down from the Sierra westward; and when the melting or retreat began and continued, powerful floods poured the gravels along, while the weight taken off by the melting and thus retreat raised the valleys and the river-courses greatly. This consumed probably some thousands of years, though not many thousand.

Successively volcanic eruptions covered the lower gravels, as for example in California the great Table Mountain—its top. These eruptions did not take much time, as has been shown, probably not over one year each at the very most, judging by other volcanic eruptions and deposits, such as those of Vesuvius, the depositing by rushing floods between them possibly not taking over one to three centuries; and so the whole occurrence of the glacial advances and meltings, the laying down of the gravels by the after-floods, with the flints and mortars and remains of human beings, with those of animals occasionally found in the gravels, with the basaltic volcanic lavas over them, probably was completed within a few, or not many, thousand years.

In regard to the Ice invasion itself and its retreats in North America, these may be seen and understood by noticing the exhibition or portrayal of them on the Map. There seems to have first been an invasion from Labrador, Ungava, the territory about Hudson Bay, through Quebec, Ontario and Canada West, through New Brunswick, Maine, Vermont and New Hampshire, Massachusetts, Connecticut, New Jersey, New York, and in part of Pennsylvania, Ohio, Indiana, Illinois, a part of Wisconsin, through Minnesota, south through Iowa, a portion of Missouri and Kansas,

through South and North Dakota, still further west through Montana, Idaho and Washington, and south even through Oregon.

Then a retreat or melting somewhat through Massachusetts and Connecticut. Then a succession of several retreats, beginning in Pennsylvania, and going through Ohio, Indiana, Illinois, and slightly through Wisconsin, and upward through Iowa and Minnesota, somewhat through South and North Dakota, and perhaps west of these, in advance and retreat.

All this time these or similar things were going on above the southern line of the ice and the moraines, which can also be seen and understood by reference to the map, not only in North America and the United States, but also in Europe, Asia and elsewhere. The ice was first advancing, and by its enormous weight deepening the valleys through which it passed, and leaving moraines—boulders and drift, and after remaining there for some time then retreating some, perhaps some hundred miles by warmer weather, thus partly melting. Rushing floods from this melting brought down drifts and gravels.

Finally, as the last melting and so retreat northward took place, corresponding to warmer temperature or climate (gradually from south to north), the great rushing floods became more normal, the lakes and rivers flowing about as at present, the valleys being also raised again to their present level, and the Glacial Age or Period terminated, as we have explained, and will more fully a little further on, in all probability amounting to about 20,000 years.

It has been believed that similar things might have taken place west of the Sierra Nevada Mountains in California, both as to the advance and retreat of ice, and the consequent floods thereafter swelling the rivers which bore the gravels.

Writing about California and Table Mountain, and the geologic age of the formations' richness in gold, and the presence in them of human remains, Dr. Joseph Leidy presents his results in his Geology, volume I, as follows: He says "The whole body of material with which we have to do is geologically speaking of very recent age. The gravels were then as now the result of fluviatile action: the rivers which did the work of rounding and polishing the innumerable boulders and pebbles which those older deposits contain are doing the same thing now, though with diminished power. The very channels in which those former currents ran are in most cases their repositories now, at a lower level and on a diminished scale it is true, but still essentially the same, since modern and ancient streams do not probably differ very much in areas of drainage.

"The closing volcanic epoch is the basalt, which is found overlying the rhyolite and andesitic outflows, and over which no extensive deposits of gravel have ever been found. The cessation of volcanic energy distinguishes the present epoch from a former one. During the formation and deposition of a portion of the auriferous detritus, the gravel region was the scene of powerful and persistent eruptive action (probably, however, successive and not continuous), the seat of which extended through the whole of the Sierra. Volcanic

vents were undoubtedly high up in the range, in the gravel regions at least."

And what Dr. Leidy presents as his conclusions with regard to the auriferous gravels of California, the rivers which bore them and rounded them, and the Sierra Nevada Mts. with their volcanic vents, were no doubt more or less similar to the cases of the gravels in other portions of the world,—in the other states, in Europe, Asia, South America, and the continents where gravels, boulders and detritus came with and from the ice of the Glacial Epoch, though not auriferous as those of California.

Professor Whitney says "That the gravels have been formed and deposited by the agency of fresh water may be set down as positively determined"; and he thought "this was done in great measure before the earliest volcanic phenomena of the Sierras. This was then rapid and great, though its after subsidence was slow and long." This was before the Glacial Period, for he says, "But there was certainly a far later period, namely that of the glaciers, during which the quantity of water in the Sierras was greater than during the gravel period, so as to enable it to accumulate such immense quantities of gravel."

A most remarkable phenomenon about Table Mountain in Tuolumne County is this, that it is a flat-topped mass of horizontal basaltic lava some 8 feet thick, around which, after it must have been so laid, broad surrounding areas have

been lowered for hundreds of feet at least, sufficiently so as to leave the Table Mt. prominently above the surrounding region. Of course it is a question how this was done; but the probability is that floods lowered the depressed surrounding area, but could not do so to the hard basaltic lava.

As to the total time of the Glacial Epoch, Professor Agassiz found, for the moving of the Alps Glaciers, an average of 1 foot a day. Professor Wright found for the Greenland Glaciers 20 feet, and H. F. Reid 10 feet, the average being thus 15 feet per day. Professor Forbes found for them an average for summer and winter of 2'.6 per day.

To be on the safe side for the Glaciers moving south, southeast and southwest over and across mountains, etc., as crossing the Adirondacks, the Green and White Mts., let us take the low estimate of 2 feet per day, or 730 feet per year. From Labrador south to Trenton, New Jersey, or from east and west of Hudson Bay south to the southern part of Illinois, say about 1200 miles, though with the rest further west averaging say 1000 miles, we have 1200 m. × 5280′,

west averaging say 1000 miles, we have $\frac{1200 \text{ m.} \times 5280'}{730'}$, which gives us about 9000 years. Allowing an equal time,

which gives us about 9000 years. Allowing an equal time, 9000 additional years for melting or retreating with successive cessations as are represented on the Map with their terminal moraines, we have for the entire time, from beginning to the end of the Glacial Epoch about 18,000 years, or to correct a possible under-estimate, say 20,000 years, the

same as the total arrived at by our former estimate, possibly, I think, a fair, and about correct view, of the total time required for advance and retreat, considering all the circumstances.

This total agrees substantially with Professors Agassiz and Dana, and Professor Prestwich in his Geology vol. II, PP. 533, 534.

Le Conte finds evidence, in the Sierra Nevada Mts., of Quaternary elevation. "The glacial depression may have produced not only a deformation—or pressing down—of the crust, but also extensive extravasation (or pressing out or escaping) of lava, as is suggested by Jamieson and Alexander Winchell for the vast Quaternary lava-flows of California, Oregon, Washington and a large adjacent region."

In conformity with the foregoing, in Geological Magazine II, vol. II, 1878, chaps. XXII and XXIII, James C. Southall speaks of "the Epoch of the Mammoth or Mastodon and the Apparition of Man upon the Earth; and further concerning the Recentness of the latest glaciation, believed to have *ended* in the northern United States, not over 10,000 to 6000 years ago."

Of later date, 1885, Prof. W. O. Crosby, in the Proceedings of the Boston Society of Natural History, vol. XXII, pp. 455-460, says that "the Himalayas, north of India, were formed (i.e. elevated) in great part during the Quaternary, contemporary with the glaciation of North America, Europe, and portions of the Southern hemisphere."

In regard to the extension and declination of the icesheets, treating of the relative ages of the principal mountain ranges of the world, Prof. Prestwich in his Geology, vol. I, chap. XVII, says that "the oscillations of the earth's crust, upward and downward, were the primary cause of the growth and decline of the ice-sheets.

"The former extension of vast glaciers in the Rocky Mountains and the Andes, the Pyrenees and Alps, the Atlas Range, the Caucasus, the Himalayas and elsewhere, far exceeding the glaciers of the present time, may be due to the uplift of these mountains much above their present height, followed by subsidence with retreat of the ice. The highest mountain ranges in the four grand divisions of the world, Asia, Europe, and North and South America, were doubtless largely uplifted and plicated (i.e. folded or made into ridges), with the formation of deep adjoining lakes, during the early part of the Quaternary Period."

If these were facts, it would seem that the early rising of some of these mountains, as the Rocky Mts. of Colorado, Wyoming, etc., and the Sierra Nevada of California, occurred in the Upper Cretaceous Era or Period, as represented on the Geological Chart, just before the Tertiary; and that their greatest and mighty uplift, with the Alps, etc., causing the glaciers, was in the Pliocene of the Tertiary as also stated on the Chart, and, as said by Professor Prestwich, the beginning of the Quaternary.

Prof. G. F. Wright in "The Ice Age in North America" (p. 691), speaking of California, says, "All the facts considered, it is most probable that both the filling of the old river-beds, and their protection by lava, took place comparatively rapidly, and were together the closing scene of the

Tertiary drama. The deep gravels, therefore, may be placed indifferently in the latest Pliocene or earliest Quaternary. The newer gravels are undoubtedly Quaternary and recent. Certain it is that the deep placer gravels are similar, in all respects, to the Quaternary gravels all over the world, except that by percolating alkaline waters containing silica, they have been cemented in some cases into grits and conglomerates. This is because they are covered with lava, which yields both the alkali and the soluble silica. The whole work of cutting the hard slate-rock two thousand feet or more has been done since the lava flow, and therefore certainly since the beginning of the Quaternary, and not before.

"There does not seem to be any hard and fast line of demarcation between the Tertiary formation (i.e. the Pliocene period of it) and the Quaternary or recent."

Le Conte warns us, in his Elements of Geology (1888), to note the prodigious rapidity with which erosion now proceeds in connection with hydraulic mining.

"In the N. Bloomfield mine (California), the pebble-loaded torrent resulting from the incessant play of the hydraulic jet against the cliff, though working but 8 months per year, has cut, in 4 years, a channel 3 feet wide and 50 feet deep in solid slate." (See American Journal of Science, March, 1880, vol. CXIX, p. 179.)

For 2000 feet deep = $50' \times 40$, this would be 40×4 years = 160 years,—less than 200 years.

"The date of the close of the Glacial Period is regarded as much more modern than it was a few years ago. Ten thousand years is now regarded as a liberal allowance for the age of the Niagara gorge."

"The gravel at Little Falls, Minn., is considerably more

recent than that in the more southern localities, since that gravel, the highest in Minnesota, could have been deposited only when the ice-front had retreated some hundred (say about 500) miles from its furthest (most southern) extension in Missouri (see Map), while the first-named deposits, those in New Jersey, Ohio, Indiana and Illinois, occur near the very margin, that is, the southern limit of the Ice-sheet and of the moraines." That, however, may have been due to the higher latitude and colder climate of Minnesota.

As has been shown, some observers of the Ice-sheet throughout the several states, and the successive terminal moraines, have supposed that the ice came down first from North to South, and returned by warmer weather melting in one long retreat; and then that it again advanced in another long series and retreat, and these from three to five times in different directions and states, going down southerly and coming back northerly each time, retreating by melting, thus prolonging the Glacial Epoch or Age to the enormous time of hundreds of thousands of years; and since the terminal moraines lie somewhat different in the different states, as in New Jersey, New York, Ohio, Indiana and Illinois, Wisconsin, Minnesota, Iowa and Missouri, as was said, three to five various complete advances and retreats were supposed by such observers to have been necessary.

But when we notice that there is one long east and west practically continuous southern limit of the Ice-Sheet, as shown on the Map, and the somewhat continuous, though more or less varied, successive terminal moraines, and when we consider that the various states have different physical features, mountains, highlands or lowlands, thus different topography, and also climates, there is sufficient unity as to

time to connect the whole in one united advance; and a sufficient variety in the continuity of Ohio and Indiana, Illinois and Wisconsin, and in Minnesota and Iowa, etc., to make, as we have said, a probable comparatively short time for the retreat as well as the advance, rather than a long one, this time being made up of a succession of retreats from the southern limit of the somewhat continuous ice-sheet, and then halts, with again corresponding short advances, till the end or final retreat and melting by a time of long warmth.

Measuring from the east, from Labrador and Canada or Ungava, southward, or southeast and southwest, the invasion of ice to New Brunswick, Maine, New Jersey, and as far west as to Illinois, about 1100 miles; and the southward invasion from the territory about Hudson Bay through Wisconsin and Illinois about 1400 miles; southward through Minnesota, Iowa and Missouri, about 1200 miles; and southwestward through North and South Dakota, Montana, etc., about 800 miles; considering the differences in altitudes and climates, it is probable that all the ice invasions distributed their moraines of boulders and gravel at and in about the same time, say 1000 miles as the average distance, in about 10,000 years.

The gradual recession or melting of the ice was on account of warmer temperatures alternating with cold, and partly also no doubt by spring and summer time and even autumn, more or less moderating the extreme cold of winter, melting in succession more or less than two to ten times, with consequent floods depositing drift of more or less height, and moraines of greater or less sized boulders and gravel formed at times of halt or re-advance.

Allowing say 5000 years for these various more southern

recessions by meltings, followed by consequent floods, and 5000 additional for the melting of the last or northern part or half, of 500 miles during the final change or greater warmth of temperature or climate preparatory to the Champlain Period: we have 10,000 + 5000 = 800 = 800 years, which in all probability would be sufficient to have completed the first total advance of the ice-sheet, and successive retreating by melting, and somewhat re-advancing, until finally the whole—all the advanced ice—was melted, and the resulting floods were carrying down and filling up the drifts.

And with equal probability, the same time of 20,000 years would be sufficient for Europe, and in general for the whole earth and its continents—the Glacial Period, or the "Ice Age" throughout the world.

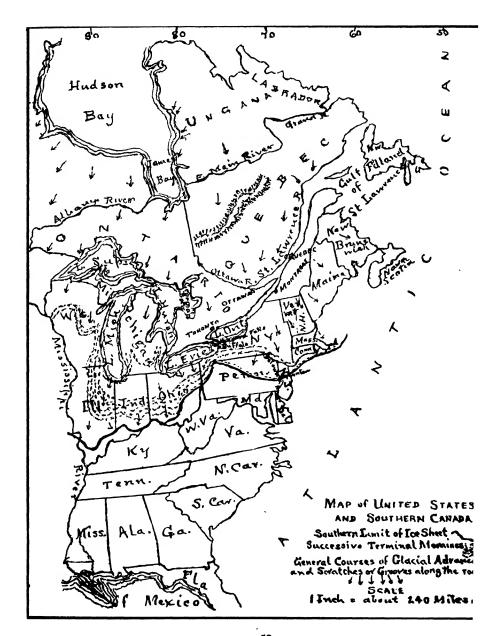
To present the foregoing to the view and reception of the mind, the Map on the following pages (58 and 59) will show all with sufficient clearness for the United States, the black lines below showing the general southern limit of the ice-sheet from east to west, the dotted lines in a general way showing the various lines of the observed and known moraines or lines of boulders and gravels, or earth and rocks collected in ridges or heaps by the glaciers as they successively moved forward, after having receded by melting by warmth, and again moved somewhat forward to these places after re-freezing by cold, further and further north.

And the source and directions of the ice can be also seen and understood by the depicting and pointing of the arrows, and so also the resulting direction of the Glacial scratchings upon the rocks which the ice passed over with its rough matter underneath, and its enormous weight and consequent pressure downward.

In regard to the great depth of the strata during the Glacial Period, in many cases several hundred feet below their present elevation, as already mentioned, it was believed to be due to the great elevation of the mountains and land in the Pliocene of the Tertiary Era, causing their extreme height of some thousand feet above their present altitude, and thus the extreme cold; and when the consequent ice invaded the territory to the south, it was so immensely heavy or weighty, that it pressed the underlying strata down; and when the ice receded by melting, and thus the great weight leaving, the strata again rose from below, and were returned to their present levels.

As regards the volcanic eruptions, such as have visited California, we have already explained that they take place very quickly, as is evident from those of Italy in Vesuvius, Mexico, and in the Andes of South America.





VII

THE UNREASONABLE HYPOTHESES OF THE EVOLUTIONISTS

LET us return now to the consideration of the destruction of the fish and marine animals by the cold waters from the north, and from the elevation of the mountains; and of the land animals by earthquake-waves thence resulting, and the ocean sweeping over them, described above as occurring at the end of Paleozoic and Mesozoic Times or Ages.

Such wholesale and repeated destructions and exterminations have little need for the perishing of the "unfit," since both fit and unfit were all destroyed, drowned or swept off the globe, together. But new species, as of Mammals, and the best or osseous classes of fishes, must have been newly created.

As one writer has well said: Darwin's famous book "The Origin of Species" says nothing of the origin of species, but only of the transmutation of species already in existence. It therefore virtually acknowledges that the first species must have been created; and since no species has made any marked progress to such form as another species exhibits, so far as we can see (except possibly in a very few closely related cases), and yet thousands of the most varied species have existed and do exist, it is altogether incredible to suppose that one developed into another; and when we see that the Creator produces every individual of all species—old and new—in a wonderful manner at every birth, it is altogether the most natural and easiest hypothesis to suppose that He produced those new forms successively in the past, as He is every day producing them now; and that He could do it,

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inasmuch as He is doing it repeatedly and in myriads of cases every day and every hour; and probably not only on this earth, but also on innumerable other earths or planets; and it does not therefore take Him millions of years to produce a species by so slow a process, as is acknowledged would be required without His direct creation, even if it were possible at all.

It is not denied that small or minor differences might have been made in a species of animal already created in a certain general and particular form to suit certain circumstances, as heavy or thick coats of hair on animals in cold or Arctic regions; but such garment was not a development but a kind provision of the Creator to protect the animal from the cold; and so in other cases. But that deep, solid, horny hoofs, like those of the horse, were developed or evolved from the three toes of the tapir, as has been asserted by evolutionists, is beyond belief of reason.

Moreover, the formation of the hoof from the three toes on the hind-feet, and four on the fore-feet, of the tapir, a useless animal, would have been a retrograde from complex to simple in the noble and useful horse—an anomaly. These toes of the tapir are comparatively soft. It would be practically impossible to bridge the gulf between these toed feet and the solid horn hoofs of the horse. The snout or upper jaw of the tapir is three or four inches longer than the lower. It is soft and prehensile like the elephant's trunk, and very narrow,—not at all like the horse with two large and equal jaws.

The successive species from the small "Eohippus,"—the "Orohippus," "Mesohippus," "Protohippus" and "Equus" or the Horse, which have been by many supposed to have

gradually developed by evolution or "natural selection," are much more easily and rationally explained as the successive or progressively superior creations of the all-wise and omnipotent Creator.

The fact of the fish in the Mammoth Cave of Kentucky being blind, or without eyes, merely proves that there is no use for eyes in that dark cave; or if fish in past time went in there with eyes, and remained without using them, the eyes closed up; and their progeny probably would naturally be formed without them, there being no tendency or effort in the parents corresponding to the eyes or their use, and the creative principle of God would not form them without any use. And if one of these fish should be taken out of the cave to the light, and should produce young with eyes, they would not be developed from any innate power of the fish themselves, but it would be by the Divine Providence and power of God the Creator, to suit the light and for use; for nothing and no one else has the least power to create.

The sudden appearance or occurrence of monstrous reptiles or "Dinosaurs" (terrible lizards), as for examples, the "Ichthyo-saurus" (fish-lizard), "Plesio-saurus" (long-necked lizard), "Stego-saurus" (armored dinosaur) about 20 to 25 feet long, with enormous and powerful hind-legs, and with a succession of vertical circular plates or blades around its back, the "Cerato-saurus," a flesh-eating reptile, about 17 feet long, also with powerful hind legs to walk, and short fore-legs with ends like hands, and the "Atlanto-saurus immanis," 70 to 80 feet long, with upper legs or thigh bones ("femurs") over 6 feet long, and others, in the geological beds of the Mesozoic or "Reptilian" Age, especially in those of the Jurassic Era (see Geological Chart), but continuing

to some extent as high as the Upper Cretaceous, as in case of the "Horned Dinosaur," about 20 feet long and 8 feet high, with a skull about 6 feet long and a long tail, and the "Duck-billed Reptile," over 26 feet long, such monsters closing the "Age of Reptiles," when only comparatively small marine animals and reptiles had existed before in the Silurian, Devonian and Carbonic Eras of Paleozoic Time, for example the "Giant Spined Reptile" of the Permian, only 6 or 7 feet long, and of an entirely different form from those of the Mesozoic Time, and much smaller reptiles even in the Triassic Era, immediately preceding the Jurassic, shows, as well as anything can, the hand of God the Creator; for there could have been no other source of such strange and gigantic animals, except by a wholly new creation.

Moreover, they came in then and went out, and none of them passed the Cretaceous Era, into the Eocene Period of the Tertiary Era. There are no Jurassic or Cretaceous species of Vertebrates, found in the American Tertiary beds,—none of those tribes of gigantic Reptiles. The nearest approach to them which we now have are the alligator and crocodile, which are much smaller. And furthermore, no marine fossils of the Cretaceous beds, or remains of Cretaceous vertebrates, are positively known to have been continued into the Tertiary formation.

It is true that any radical difference in species must have needed the same creative wisdom and hand or power; but in this case it is more evident than where smaller differences existed; and the evolutionists evidently have no leg to stand on, and no plausible source to appeal to. And moreover, great whales appeared in the seas for the first time in the Eocene Period, without any known or different progenitors.

And there is a Sea-living Mammal called "Basilo-saurus cetoides" found in the Eocene sea-deposits of North Africa and South United States, along the Gulf of Mexico border; but it has no legs like the Dinosaurus or Reptiles of the Mesozoic or Reptilian Age; "its ancestry is not known, and it has left no descendants."

In regard to the Tertiary Era, it is a remarkable fact that in the early Eocene Period of it, the mammals and Quadrumana (mammals with four hands like monkeys and lemurs) had 44 teeth, and that they were followed by others in the later Eocene or Miocene Period, with only 32, like Man. This must have been a design of the Creator, and not the result of mere drifting chance, or by any blind evolution of the ignorant animals.

The marvellous order, and beauty displayed, especially noticeable in the invertebrate animals which lived in the Jurassic Era, as well as other preceding Eras, such as the Polyp Corals, the Echinoderms, Brachiopods, Lamellibranchs and Cephalopods, which may be seen depicted in books on the subject, such as Dana's Geology, increase the proof that an all-wise and wonderful Creator must have made or formed and vivified all the species, and only He. Senseless or ignorant animals would be utterly powerless to produce or evolve such marvels of order and beauty.

If God thus bestows such wonderful beauty and complex order upon these inferior beings—the lowest in creation, not to speak of the marvellously acute senses with their organs which He gives them, how much more and superior elements does He confer on the higher forms and man, and how impossible would it be for these ignorant beings, which know not one iota of how to create a single thing, or even man

himself, who has no more than the merest superficial knowledge of himself, or any of his organs, to so produce them! This is in accordance with what the Lord Himself said in Luke XII. 25-28 in regard to man and also plants:

"Which of you, thinking earnestly, is able to add a cubit upon his own stature? If ye then be not able to do that which is least, why are ye anxious for the rest?

"Consider the lilies how they grow: they toil not, neither do they spin; and yet I say unto you, that even Solomon in all his glory was not arrayed like one of these.

"If God so clothe the grass of the field, which to-day is, and to-morrow is cast into the oven, how much more shall He clothe you, O ye of little faith."

Man, by selective breeding, has obtained variations, and what he thinks are improvements, with animals, and also with plants: but it is man who does this. Animals and plants alone do not so vary or improve by selection and union of mates or different special species.

"A tendency upward" which is observed by naturalists, and has been supposed to support the evolutionary hypothesis of gradual improvement in plants and animals throughout the ages, is explained by Genesis I, in the creation by God, successively, of inferior to superior creatures, and finally to man as the supreme created being, but not by blind nature or animals without the understanding and will of man, or even by these God-given faculties of man himself, without God, and not by evolution or metamorphic development of an inferior kind of plant or animal into a superior, or to man.

Professor Dana latterly and others, on account of the introduction, in the higher species, of a "cephalic nervous

mass or brain," have supposed that there is "a tendency upward": but this is not derivable from the brain of animals, because there are two brains—(1) the cerebrum, and (2) the cerebellum; and in all except man, the cerebrum—the front brain—is subject to the cerebellum—the back brain. That is, the understanding or thought (residing in the cerebrum) is subject to the natural will or animal nature, or feeling (residing in the cerebellum or back brain). Hence no advance is possible to them: they have to be as it were carried or conveyed upward by the Creator, if they advance. Or rather, as a rule, He must create new species, if His design is to make improvements.

Only in man is advance possible, and not even in him without God; but by man and God co-operating or working together, as we read in Mark XVI. 20: "They went forth"—the apostles, "and preached everywhere, the Lord working with them, and confirming the word with the following signs"; and in Genesis IV. 1, "Eve conceived, and bare Cain, and said, I have gotten a man with (the help of) Jehovah."

The errors of mere scientists in regard to creation and the production of species, arise from their not reading the Word to see what God can and must do, in order that creation of species may be brought about, and what man cannot of himself do, and what mere animals are limited to (see Psalm XLIX. 20: "Man that is in honor and understandeth not, is like the beasts that perish"), and the origin of man's sole dominion over them, he alone having and being a living soul of thought and rationality (see Gen. II. 7), noticing also and acknowledging that God alone has power as a source, according to Psalm LXII. 11—"Power belongeth unto God"; and then humbly and faithfully trying to see

how to make their science agree with the Word or Wisdom of God mercifully revealed by Him for man's enlightenment and use—as that man's cerebrum or truly human brain is much larger than, above and in front of, his cerebellum or back or animal brain, and is intended to govern it—the natural and animal by the spiritual or truly human (see Gen. I. 26, 28; and Matth. XXII. 4; Acts X. 13, where we see that man kills and eats animals by the permission of God; as also Gen. IX. 3 and Levit. XI. 2).

Dana says (p. 1034 of his Geology, edition 1895) that "the plants that migrated in the Tertiary from the Arctic regions southward over Japan and North America, and became new species on the way, simply changed. That is the sum of knowledge on the subject." (The italics are mine.) In regard to the "migration" of plants, Humboldt, in

In regard to the "migration" of plants, Humboldt, in his Cosmos, Vol. I, page 349 (edition 1863, Harper & Bros.) explains that "plants migrate in the germ," that is, as seeds; "and in the case of many species, the seeds are furnished with organs adapting them to be conveyed to a distance through the air.

"When once they have taken root, they become dependent on the soil and on the strata of air surrounding them."

And considering "the vast area swept by the glacial sea," he finds means to account for "the presence of identical species at such distant points as the higher parts of Alpine ranges in Europe and Asia, with plants indigenous in the cold regions very far north, and not found in the intermediate lowlands."

But he does not say, or wish to show from this, that the species changed; only that species were identical at so great distances apart, and with no intermediate connection, de-

pendent for their existence, as he said, on the similar soil and climatic conditions. These facts would also seem to equally allow of their being separately created at such similar locations and conditions.

But to assume that "new species" were produced from the same seed by mere migration of that seed, as Prof. Dana states to be "the sum of knowledge on the subject" is entirely another thing; and in the light of what has been already explained, the "new species" would seem to be really the products of distinct and separate creation, from different seed.

But Professor Dana further says: "Man affords an example, that is, of the ability of plants and animals to improve." He exemplifies the power, as it were, of the feet of creation (or of plants and animals) to survive and improve, by the power of the head (or of man); which seems an inverted and improper example or premise.

As exemplifying and showing the unsound, not to say absurd, thought and deduction of the evolutionists, the whales are supposed by them to have been a degenerate flesh-eating species, originally a small land animal, which for escape from its pursuers, as told us by Dana, "took to the water, where support from limbs (legs) is not needed. In this supporting element, the body became enormously enlarged, and multiplicate in its vertebral column like the sea-saurians, the length being increased from 4 or 5 feet to about 70 feet, and the size of the dorsal vertebrae to a diameter of a foot, and to a length of a foot and a half. It may also be presumed ("presumed" is a most fitting word) that the whale-bone plates, over 350 in number, either side of the middle line, grew downward from the palate, just as soon as they

were needed"; but Prof. Dana, with the glimmering light of reason struggling through the clouds of his mind, adds: "the question, what made them grow, remains, as in many like cases, unanswered."

The fact is, it seems to be all the unreasonable ratiocination of irreligious men-mere materialists, who seem to be in the effort to rule God the Creator out of His Universe. How many billions of years would be required to grow from a small animal, naturally only 4 or 5 feet long, to an enormous one of 70 feet, or from a land to a sea animal? And why should such a marvellous and prodigious growth or elongation take place? Is the hypothesis not on its face nonsense? And if a land animal did retreat from a pursuing enemy into the sea, would it not more probably shrink, if it did not drown, instead of growing or increasing in length and bulk so enormously? Is it not more probable that the great whales or sea-monsters were originally created by the Creator in their present form in the seas, as the Geological strata show, first in the Eocene Period of the Tertiary Era (see the Geological Chart or Schedule), and as we are taught in Genesis I. 21?

Dana, strange to say, could stomach some of Darwin's ideas about variation of lower nature—plants and animals, though no doubt inwardly protesting at some of his broader hypotheses: but finally he dissents. Darwin's suppositions are too glaringly absurd for him to go any further with him; and when the proposition is set before him, for his acceptance, of the Giraffe getting his long neck from high reaching after food, and its forelegs being much longer than the hind ones by its own efforts, he has come to the parting of the ways; and he finally says, "The question comes up—

How should the Giraffe have had to run to make its forelegs grow faster than the hind legs, and what kind of antics would have started the change in the neck? It has to be supposed that the requisite augmentations were somehow begun, and that under interbreeding, accelerated growth went forward. But the orgin of the variation is without explanation. And so it is for the most part throughout the kingdoms of life."

VIII

THE ORIGIN OF MAN

IN regard to the origin of man, and whether he has progressed, or has proceeded by evolution, from the ape, or any species of the monkey tribe, such change must have taken place, if at all, in Cenozoic or Recent Time. Man's first appearance in numbers, as shown by skeletons found in the strata, was in the Champlain Period of the Quaternary Era (see Chart or Schedule of the Geological Ages, Eras, etc.), where men's skeletons have been found, together with stone implements of their manufacture. This Champlain Period, as said above, has been estimated by the rate of subsidence of the strata at Niagara, and at the Falls of St. Anthony, to have been about 7000 to 9000 years long. was the period of subsidence, and therefore, warmer, coming directly after the Glacial Period, with its great elevation, and ice 2500 to 6500 feet thick, now calculated to be about 20,000 years long, probably too cold in that northern and elevated region for the existence of much life. But a skull of a man is said to have been found in the auriferous gravel in Calaveras County, California, as well as other human bones in other counties, with bones of the mastodon, elephant and horse, and stone mortars and implements, at depths of about 10 to 100 feet below the surface. Accounts are given of these in "The Auriferous Gravels of the Sierra Nevada," 1880, by Prof. J. D. Whitney. They are attributed by Mr. Lesquereux, the plant geologist, to the Pliocene Period of the Tertiary Era.

The skull, which is now in Harvard University, was found in excavating or sinking a shaft in Bald Hill, about half a mile northeast of Altaville (about 1¹/₄ miles northwest of Angel's); and the layers of material passed through are as given below:

		Feet.
	Black lava	
	Gravel	
3.	Light lava	30
	Gravel	
5.	Light lava	15
6.	Gravel	. 25
7.	Dark brown lava	. 9
*8.	Gravel	. 5
9.	Red lava	4
10.	Red gravel	. 17

^{*}It was in this bed of gravel, No. 8, that the skull was found. Note that the total depth of gravels underneath the layers of lava—Nos. 2, 4, 6, 8—amounted only to 38 feet.

The overflows of lavas put a stop to or interrupted the depositions of the gravels, and may have taken place in a short time, even each in less than one year. As has been shown in Chapter VI, and recollecting that this supposed occurrence was the deepest of any of the findings of human remains or stone implements in any of the counties of California, we have a probability of not to greatly exceed 20,000 years ago, that is, as calculated in chap. VI, not, or not over, 10,000 years before the end of the Glacial Period. Mortars, pestles and stone dishes have been found with other stone implements and tools in several counties in pay gravel.

And now as regards the "Calaveras skull" itself. Accurate measurements are given of it as follows:

	Millimetres Inches
Breadth of Cranium (or skull)	\dots 150 = 5.91
*Breadth of Frontal (or forehead)	\dots 101 = 3.98
Frontal Arch	$\dots 300 = 11.82$
Length of Frontal	\dots 128 = 5.04
†Height of Cranium	\dots 134 = 5.38
Zygomatic (cheek-bone) Diameter	\dots 145 = 5.71

*Breadth of frontal at its narrowest part, when the skull is viewed from above.

†Measured from anterior edge of the foramen magnum to level of the top of frontal, and an inch behind it on the inside.

We may remark that these are large measures; and, as Professor Whitney says, "the skull presents no signs of having belonged to an inferior race, which is especially obvious in the great prominence of the forehead and the capacity of its chamber. The volume of the frontal region is large."

It has been supposed by some, from the fact that these early people of the human race evidently constructed stone implements, and that some of them resorted to caves as shelter, that they were very low down in the scale of human intelligence and grade, and Prof. Whitney seemed to be of this opinion.

But this does not follow from these facts, although it may be true, as he says, that "the steps of progress in Central Europe indicated by successive use, first of more artistic stone implements, then of bronze, and afterwards of iron (see Genesis IV. 20–22), have no parallel on this continent." Such a succession of progressive use, in the case of California at least, may have been cut off by these volcanic eruptions of lava indicated in the section of the shaft given above from whence the skull was taken. But such supposed inferiority is not indicated, as Professor Whitney himself admits in the case of the skull, which he depicts in Plate L of his work on "The Auriferous Gravels" between pages 268 and 269.

Consider also that there may have been then and there no mines, or metals except placer gold, no houses such as we have them, no tools or implements except what they themselves made, perhaps no beds or blankets, no gas or electricity applied, nothing much except the sun, rain, water, perhaps some grains, vegetables and fruit-trees with their fruits, and the earth and rocks. Take the most intelligent people, and place them in such circumstances, and they would have to begin at the bottom, just as the people of those early days did. And it would seem that under such circumstances it would require a considerable amount of skill and ingenuity to make the mortars and pestles and tools and implements out of the solid stone or rock. And as protection against inclement weather, at least for a time, caves might be gladly sought. If trees or their branches were broken down, and houses or huts constructed with them, they would probably have all disappeared, no trace of them remaining.

But Professor Whitney finally says (p. 288) "Man then was the same as we now find him in that region, and the same as he was in the intermediate period after the cessation of volcanic activity, and while the erosion of the present river canyons was going on. Man thus far is nothing but man, whether found in Pliocence, Post Pliocence or Recent formations." The italics are mine.

The mastodon and elephant whose bones were found in the gravels, as appears in the geologic chart, belong to the Champlain Period; but in some places, Mr. Lesquereux of plant geology believed, the fossil plants found belonged to the Pliocence Period.

At three places in France,—in caves of Mentone near Nice, of Cro-Magnon in Perigord (or Perigueux), and at Grenelle (or Grenoble), skeletons of men have been found, 6 feet high, 5 feet 11, and 5 feet 10 inches respectively, with large heads and upright foreheads. They were referred to the "Reindeer" or Champlain Period, while in the caves of Belgium, shorter skeletons were found like the Finns and Laplanders. But they were referred to the same Reindeer or Champlain Period.

The Monkey tribe first appeared in the Miocene Period of the Tertiary Era; and men in numbers, as abovesaid, in the Champlain Period of the Quaternary Era; and the skeletons which have been found in the Champlain Strata have been, in some cases, as said just above, those of tall men, 5 feet 10 inches to 6 feet high, with long and large heads and high and well-formed foreheads—quite vertical, not receding; and so with the Calaveras skull which Lesquereux is thought to have referred to the Pliocene Period; quite fair proofs that they were so created—of superior type—at their earliest advent, and were not then passing from the type of the ape, to be afterwards evolved into the type of man; and this agrees with the account of the original creation of man by God in His own image, as recorded in Genesis I. 27, 31 and Matth. XIX. 4, which, with His other creations, was pronounced "very good"; and it agrees also with the account and tradition of the ancients, who recognized the first age of man as the "Golden Age," that is, that the people of that age were eminently superior; and it quite disagrees with the superficial theory and hypotheses of the evolutionists.

It is true, it might be that these skeletons and skulls, with the stone implements which they made, were of a race after that of the first people—those of the "Golden Age"—still superior to these of the remains found; and that these of the "Stone Age" were descendants much fallen from the lovely state of man as first created by the hand of God. But those which have been found are of a sufficiently excellent type to preclude the probability or possibility of the earliest men being allied in form or brain to the ape or monkey tribe.

Supposing that the first race of men were the most perfect and of the "Golden Age," superior to those of any skeleton found, and that they lived in the land of Canaan or Palestine and the country to the east of it—in Syria, Mesopotamia, Assyria and vicinity (see Gen. II. 10-14; VIII. 4; XXV. 18), their bodies and all traces of them may have been obliterated by floods such as Noah's flood, which may have occurred in those places where they lived, without being universal; their flesh might have been devoured by fishes; and although it may be almost incredible, atmospheric influences may have been a partial cause of their disappearance; for when I went down into the vault at Greenwood Cemetery, Brooklyn, in which the bodies of my own father and one of my aunts were interred in wooden coffins, I found, to my astonishment, that the lids or tops of the coffins had sunk down close to the bottoms of the coffins, so that not a trace of the bodies—not even of the bones—could have remained. They must have gradually crumbled and evaporated. To me it was "a new thing on the earth," which I might not have been able to believe, if I had not seen it with my own eyes. Only forty to fifty years had sufficed to effect their disappearance, and the bodies could not have been stolen or removed, there being no object; and the vault was carefully kept closed; besides which, no one is allowed to enter the vaults without permission of the authorities in charge of the Cemetery; the only perceptible contributing

cause being the fact, at least in the case of my father's body, that the coffin of another—a distant cousin of mine—had been placed directly above that of my father, having died a few days afterward, and that the pressure of its weight had so contributed to the disappearance of the body of the latter. The above, though an actual occurrence, may be disbelieved, and is only related to illustrate possible atmospheric influence.

Hence it may be said that man has not lived long enough upon the earth—only some thousands of years, as is shown by the human skeletons which have been found only in the recent geological strata; and probably neither has the ape or baboon or gorilla—to allow the millions of years supposed to be required, by the evolutionists, to account for the enormous advance from the bodily state and form of an ape to that of a man.

Such transition and progress are scarcely conceivable in the comparatively short time of man's sojourn or existence on the earth; and even if we should regard his first advent as being in the Pliocene Period, immediately after the Miocene when the Monkey tribe first appeared in numbers, there would not have been time in which the change or "evolution" could have taken place; and besides there are no such intermediate forms found in the strata, as would be required to substantiate the development or evolution theory even in this case. The possible finding of the skeleton of a deformed man occasionally would not prove it, because such people are occasionally born to-day with mal-formations or deformities, due in some cases to some horrid or revolting analogous sight appearing before the mother's eyes during gestation, under the same law of nature by which the patriarch Jacob

selfishly profited (see Genesis XXX. 37-42); and besides, the ape and gorilla still remain probably just as they were originally, with no perceptible change, or endeavor to change.

"The Gorilla," Mr. Prothero—the English author—says, "builds a home in the tree-tops, but has not the wit to add a roof; and from time immemorial, the animals have lived in communities something like men, but during countless ages they have learnt nothing: they remain as brutish as ever were their ancestors.

"The Chimpanzees—show-animals—have little claim to real intelligence. They only go through what at best are their tricks while under the watchful eye of a trainer. The cleverest Ape would no more dream of using a knife and fork of its own initiative when feeding, than a caged lion would of its own free-will amuse an audience by leaping through blazing hoops."

Professor James Dwight Dana, the eminent geologist and author above referred to, says, writing on the same subject, in an early edition of his great work on Geology:

"The interval between the Monkey and Man is one of the greatest. The capacity of the brain in the lowest of man is 68 cubic inches, while that in the highest man-ape is but 34. Man is erect in posture, and has this erectness marked in the form and position of all his bones, while the man-ape has his inclined posture forced on him by every bone of his skeleton. The highest of man-apes cannot walk except for a few steps, without holding on (to some tree or other object) by his forelimbs; and instead of having a double curvature in his back like Man, which well-balanced erectness requires, he has but one. The connecting links between Man and any man-ape of past geological time have not been found, although earnestly looked for. No specimen of the Stone Age that has yet been discovered, is inferior to the lowest of existing men; and none is intermediate in essential characters between Man and the man-ape.

"If the links ever existed, their annihilation without a relic is so extremely improbable, that it may be pronounced impossible. Until some are found, Science cannot assert that they ever existed.

"The present teaching of geology very strongly confirms the belief that Man is not of Nature's making. Independently of such evidence, Man's high reason, his unsatisfied aspirations, his free-will, all afford the fullest assurance that he owes his existence to the special act of the Infinite Being whose image he bears."

In a later edition of the same work (1895), Professor Dana presents the following further remarks on the subject:

"Man's origin has thus far no sufficient explanation from science.

"Man is not quadrumanous, or having four hands, as monkeys and apes are; his feet are palmigrade or plantigrade (walking on the whole sole of the foot), devoted to advance or locomotion, and resting on the ground, with hands or upper limbs for work. The teeth of his two jaws are exactly alike, each making one continuous even series, with nothing of the disastema (or vacant space or gap between the teeth of the jaw) which prevailed among the higher monkeys. These are proofs that man has not descended from the Ape.

"The brute, including the Ape, has powerful muscles in the back of the neck, to carry the head in a horizontal position, while Man has no such muscles. Man is the only *erect* species of the whole (geological) series, and has a double curvature of back suited to this characteristic.

"Beyond this, the great size of his brain, his intellectual and moral qualities, his voice and speech, give him sole title to the position at the head of the kingdoms of life. Since Man's structural relations are in several respects closest with the *precursors* of the Quadrumana, his derivation from any known type of man-ape has been pronounced impossible. His brain is twice the size of the highest of the Quadrumana or Monkey tribe. He has an erect body, with erect forehead and ideal symmetry.

"Man was the first (and the only) being, in the geological succession, capable of an intelligent survey of nature, and a comprehension of her laws (to which may be added his memory and reason, and his ability to plan and adapt means to ends, and to discover and invent useful things and methods); the first (and only one), capable of augmenting his strength by bending nature to his service, rendering thereby a weak body stronger than all possible animal force; the first (and only one) with soul and mind capable of deriving happiness from truth and goodness; of apprehending eternal right; of reaching toward a knowledge of, and of learning about, self and God, and of loving Him; the first (and only one) therefore, capable of conscious obedience or disobedience to a moral law, and of governing his animal by his spiritual nature; and thus the first (and only one) subject to debasement of his moral nature through his appetites.

"There are in man, therefore, spiritual elements, in which the brute has no share, as also in speech. His power of indefinite progress, his thoughts and desires that look onward even beyond time, his recognition of spiritual existence and of a divinity above, all evince a nature that partakes of the infinite and divine."

That no other form for man need be expected in the future, except more beautiful from a lovelier spirit, is proven or indicated by the fact that God Himself assumed or took man's present form (see John I. 1, 3, 4, 9, 10, 11, 14; Matth. I. 18-25); and hence it is the crowning form for this earth for eternity.

To the above may be added the following information: Both man and a number of extinct animal species must have passed from Asia to America during the continuation of land elevation and the Ice Age, which was brought on by the elevation, as the Alps Mountains—known to have occurred during the last part of the Tertiary Era—the Pliocene Period, and probably a great elevation also of the Rocky Mts. and of the Sierra Nevada—(see Geological Chart).

At Galley Hill in the valley of the Thames River, England, and at Ipswich near the East coast, human remains were found in 1888, in Pleistocene high-level river drift, 90–100 feet above the Thames. Galley Hill deposits show about 8 feet of gravel and sand at the surface, and underneath this a clay deposit 2 or 3 feet thick. A skeleton was found in this deposit; the skull was closely related to the modern European. The remains of a "river-drift man" were found in the valley of the Lys, Belgium, in the valley

of the Neckar, a tributary of the Rhine, near Heidelberg, Germany, and at Kiev on the Dneiper in S. Russia. Gravel deposits contain the oldest known relics of man in Europe, all in perfect analogy with the streams in the glaciated area of the United States, and showing man's recent creation and appearance.

As to the question of ascent or descent of quality in the tribes in the United States, Professor Wright thinks that the tribes of the east at first were descended or declined from those who first reached the Pacific coast. That is, instead of those of the Pacific coast having ascended or improved from Atlantic tribes, the latter—the rude Atlantic tribes—probably descended, declined, or were degenerate from the former—the Pacific-slope people. "The tribes of the Atlantic were in glacial as in post-glacial time, degenerate descendants of those on the Pacific slope."

Prof. Schoetensack discovered, Oct. 21, 1907, what was called "the Heidelberg Man." "The antiquity of the skull is confirmed in these gravels at Maur by the bones of extinct species of elephant, rhinoceros, horse and bear, with bones of deer, bison and beaver now found further north."

In Wright's "Origin and Antiquity of Man," pp. 320-325, we read as follows:

"Caves of Southern England bear abundant testimony to the existence of a prehistoric race in Great Britain, contemporary with the River-Drift man of the Eastern counties, and of the Northern counties of France. Skulls of primitive type have been found associated with extinct animals both in Belgium and in the caves of England, and in Cannstadt, Wurtemberg, Germany."

"Rude stone implements of various classes, and remains

of animals—bison, reindeer, horse and rhinoceros, characteristic of the Glacial epoch of the early cave-man, fixes their position with reasonable certainty."

In regard to "prehistoric human skeletons," "Neanderthal skeletons of Europe have been regarded as ape-like," as also "skull skeletons" at Spy in Belgium.

"With regard to the antiquity of man, so far as the question depends on his connection with the Glacial epoch, it is not proved to be, even allowing a generous margin, greater than 12,000 or 15,000 years."

As calculated in Chapter VI, and repeated in the forepart of the present chapter, man's antiquity did not probably precede or commence 10,000 years before the end of the Glacial Period.

"A study of the history of the world reveals the further fact that there has been no marked tendency of improvement in the human race, except as it has been brought in contact with the developing civilization that appeared in the earliest historic times.

"But all civilization is traced back to that in the valleys of the Nile, the Euphrates and the vicinity, which appears in full tide 4000 or 5000 years before the Christian era. From Central Asia the world received domesticated plants and animals. Assyrian and Babylonian empires constituted the earliest civilization in Western Asia; annals dating from 2200 B.C. exist. Egypt was peopled from Asia, the seat of earliest civilization. The date of the founding of Memphis is estimated as 5000 to 4400 B.C. From Egypt the world received an alphabet, and a written language. Greece, and Rome from Greece, received their great tide of learning and civilization from Egypt. The Israelites or Jews, or the

Semitic nation from Jacob, and then Moses, were sojourners in Egypt about 3500 years ago; and finally our Lord Himself went down into Egypt, and learned as a child all the wisdom of the Egyptians."

In regard to the human race before the Incarnation of our Lord, we read that "the history of the human race gives no countenance to any doctrine of universal and general progress among the races of mankind, but sustains rather a doctrine of predominant natural tendencies to degeneration (see Genesis 6. 5-7; 11. 6-9; Matth. 23. 37-39; Luke 13. 34, 35; 23. 33), which is only counteracted by prayer and effort, having learned about the Lord God and the keeping of His commandments, by which man may be born from above, from the Lord's Holy Spirit (as we learn from John III. 1-8), and by contact and education from specially favored nations, and by voluntary acceptance of their most valuable ideas and practices.

"While the antiquity of man cannot be less than 10,000, it need not be more than 15,000 years ago; 8000 to 10,000 years of prehistoric time (that is, before or in addition to written history of say about 5000 years) is ample to account for all known facts relating to his development. Probably divine intervention assisted him to his pre-eminence," as the knowledge, for instance, of the necessity and healing value to the human race of salt and olive oil, signifying also the true affection and true holiness of all offerings and worship of the Lord (see Gen. 28. 18; Levit. 2. 13; 7. 12; Numbers 6. 15; 15. 4; Mark 9. 49, 50; Luke 7. 46; 10. 34).

Though of course man, as long as he has discovered the auriferous gravels and slates of California, has undoubtedly gotten the gold out of them as far as he could by placers,

shafts and tunnels, and hydraulic workings, yet no human remains, skulls or otherwise, could possibly have been put in them while they were forming or being deposited, that is, so early, though of course they might be buried there when they—the workers—were working, that is, after their. working was finished there. If in one special case it has been otherwise, either the skull or skeleton must have been gotten there in an unnatural way, or else a mistake has been made in judging the chronology or time of the deposition or age of the gravels in which the remains were found.

In every case and in any case, we may say, one thing is certain, that no human being lived before the Ice Age of the Quaternary, though such might have lived in some different parts of that Age, in all probability during the latter portion of it, say within the latter 10,000 years out of the possible total of 20,000.

It is generally admitted that the human race was living in Europe during the later "Pleistocene" or in the Quaternary Era or Age.

In the auriferous gravel of California, 10 to 100 feet below the surface, stone mortars were found, and the coarsest kind of implements. The "Calaveras skull" is said to have been found at or near the bottom of 38 feet of gravel, and below 94 feet of lava. The lava was of four layers—40', 30', 15' and 9', and as we have before shown, could have been poured out within as many as 4 different or separate years, and the gravel may have been brought down by floods easily in 38 centuries, the total time being not over 4000 years.

As to the people who were living west of the Coast Range near the Pacific Ocean, Prof. Whitney said that there are strong reasons for believing that man could not have maintained an existence there any earlier than towards the very close of the Pliocene epoch. And as we have said just above that we may be sure that genuine man, human beings, did not live before the Ice or Glacial Period, probably the latter portion of it, it follows that man did not live either near the Coast Range or elsewhere in California or in any other part of the United States or of the world in any part of the Pliocene Period of the Tertiary Era, or before the Quaternary Era.

It has been announced by some that the discoveries in Europe, that is, in Portugal, carry man close to the verge of the Tertiary Era. Cut flints, evidently the work of human hands, are said to have been found there in abundance in the Pliocene and Miocene Periods of the Tertiary Era. "More than 1200 feet of strata have been piled over the beds containing these implements. These rocks have been upheaved and turned up at an angle in place quite vertical since man's appearance. This appearance was prior to the cessation of volcanic action."

It is said of Sir Charles Lyell, the great English Geologist, that though he probably knew of the declaration concerning this matter in Portugal, that he did not mention it in his works, although in his great work on "The Antiquity of Man," he did mention the fact of man being in the Ice Age in the Quaternary Era or "Era of Man," after the Tertiary or "Era of Mammals." The fact that the strata were raised before the last volcanic eruption does not prove anything with regard to time, for such eruption may take place any time, and in a year or less.

In regard to the beginning of man upon the earth, there is one thing that we should recollect and take into considera-

tion. God is a being of Infinite Love and Infinite Wisdom. These being His attributes, and man being His objective work or the end in His Creation, it seems to me a matter of common sense to see that He would not have created man at the wrong time, or before the time when He could make him happy and not miserable. To do the latter, would not be the work of Divine Love or Wisdom, but rather of both carelessness and foolishness.

But supposing that flint implements were found in Portugal, India, California, Japan, Australia and elsewhere in the Pliocene and Miocene Periods, how should we be obliged to account for such facts? Probably we should then have to believe that some beings, though not man, had made those flint or stone implements. Since they were crude, not equal to those of France, we would have to believe that apes, in some respects like man, had done it for purposes of eating and drinking and other natural purposes, and thus merely for the senses. This, of course, though perhaps not impossible, would be hard to believe.

The proper time, then, for the creation and introduction of man by the Lord into His universe, would be that of the Quaternary, or Era of Man; and that would be, and no doubt was, in the latter part of the Glacial or Ice Period, and at the location where the Ice cold was not present, which, as we have stated, was in southwest Asia.

Truly wonderful occurrences of human remains and works of art are said to be under Table Mountain in Tuolumne County, California. I have traveled several years over California,—San Francisco, Los Angeles and up through Shasta Co., through the "Mother Lode" from south to north, and have passed over the flat basaltic table-land of

Table Mountain; and although these remains and art-works may have been found under this capping of basalt, this does not prove that they were so located before the Glacial Period or the "Ice Age," since the basaltic covering of that mountain must have been deposited afterwards, the precise time being not known, man having begun to live at first, and at his best estate, in southwestern Asia, in what was called in the Word of God the "Garden of Eden," or of delight and beauty, in some portion of it, possibly about 15,000 years ago, gradually receding in quality to the time and state represented by the people before Noah, and after the dissipation and destruction of these last, represented by the flood, the new series of people, beginning with those represented by Noah and his three sons-Shem, Japheth and Ham and their progeny, departed in various places and states spoken of and represented in Genesis X and XI, separating, making choice and locating in all the various portions of the earth-Asia, Europe, Africa, America North and South, Australia, and all the islands near these continents, these islands having been connected with or parts of the Continents, but afterwards having separated by the descent of the land and the passing over it of the waters of the ocean, and so parting between the islands and Continents.

But it may be asked "How is it possible that such vast advances have been made in art, building, construction, languages and so forth, if only some thousands of years have been required to reach the wonderful present attainments which now present themselves to our view, or which are known to exist throughout the earth and among the nations?"

As is known and as we have said, the first great advance in knowledge and ability was made and shown among the Asiatics and Egyptians, and no doubt was from the people of the "Silver Age," of mankind beginning from Noah and his sons.

From these, who cultivated the intellect, the nations of Europe who made advances in knowledge and ability, proceeded, and some in Asia also; and these have been called the Aryan races or people. But it may be said that such real advances as have been made among the enlightened people would not have been possible through them, no matter how long they lived on the earth, unless it was by revelation from God the Creator, and by His raising up certain particular men, and sometimes women, persons say one in a thousand or many thousands of people who could receive such advanced revelation or inspiration spiritual and natural, who like the prophets could write the Word, others who could learn how to make designs and build properly; who could construct various kinds of machinery and necessary implements; others who could learn alphabets, languages and words, and so forth; and such persons as could do these things in their own lifetimes, within 30 or 50 years, such were and are the leaders and guides and shepherds of men, while the rest were mere followers, or sheep following their shepherds. The race has had examples of such in Noah, Abraham, Moses, Joseph, David, Solomon, Ezra the Scribe and Nehemiah, the Prophets Elijah, Elisha, Isaiah, Jeremiah, John the Baptist, and (after Jesus our Savior) Matthew, Mark, Luke and John, and the rest of the apostles; in these latter days Isaac Newton, the discoverer of gravitation, Columbus, the discoverer of America, Emanuel Swedenborg of the New or spiritual dispensation, Morse of the Telegraph, Cyrus W. Field of the Atlantic Cable, Thomas

Edison of the wonders of electricity, Graham Bell of the Telephone, Marconi of the Wireless Telegraph, Wright Brothers of the Air machines, and so forth.

All such men may be said to have been and are geniuses and talented men of a high or the highest order, whom the Lord has given to the human race to guide it upward and onward through the Ages. We may be sure that a comparatively few of such master-minds with their lives, for several generations, and not many thousands of years, have been sufficent to ensure for the human race all the marvellous advance at which we wonder, and do not fully understand how the beginnings and the details could have been arrived at and worked out.

In the present marvellous New Age of the world, it is true that a large number of intelligent minds are added to the few master-minds, and the advances, as of the Radio and other things of marvellous ingenuity, are being added to the world's knowledge; and also the lightning-like rapidity is equally wonderful, with which the time is speeding, so that a decade is like a former century in its work.

In regard to the remains in the auriferous gravels of California, and in the gravels elsewhere, human remains, works of their art, and remains of animals: bones of the mastodon (like monstrous elephants), mortars and pestles, arrow and spear heads of obsidian, all these have been found, especially in Tuolumne County, in the uncovered gravels, as well as beneath the basaltic capping of Table Mountain.

these relics being found several (as low as 90) feet below the surface and this capping.

It is true that it is probably not certain that anything actually human has been found so, only the mortars and tools evidently of man's production. These might have been put down there by or beneath the lava, at any rate, as is shown in the Geological Chart, in which the huge animals mentioned are placed opposite the Champlain Period, not earlier than the Glacial Period, and towards the latter part of that. The whole matter of the time or Period in which the tools and animal remains were deposited in the places where they were found depends upon the time necessary for the deposit of the lava, and of the gravel underneath it. It has been shown that the lava may have been deposited quickly, within a year more or less, probably less; and the gravel, together with all its contents, might have been deposited in one or more centuries, so that it is not necessary to worry or vex ourselves with such immense amounts of time as some have thought it necessary to do. Volcanic lavas have been thus thrown out quickly, and in ancient times floods of rivers have rushed down and splashed their contents with tremendous rapidity, without any sluggishness, dilatoriness or moderation. And we may consider this to be true, even supposing that a skull, such as the "Calaveras skull," was found in the gravel; and also if other parts of human bones were found many feet below the white or dark lava with animal remains, and the mortars and tools, the product of men's hands.

Dr. H. Boyce was struck with the great number of years which have elapsed since the life of this being—man. He said:

"The auriferous drift was deposited long anterior to the

present drainage system. And when we look at the great depth which the rivers have worn through the drift, and into the rocky sides of the mountains, in some places nearly 2000 feet, the mind is lost in wonder at the time which has elapsed since man was first born into the world."

And yet we must recollect that the immense amount of erosion and denudation which the region must have undergone since those gravels were deposited, were effected with tremendous rapidity, as it were a jamming and slap-dashing, though of course less rapid as the melting or glacial retreat was finally ending.

It has been said by Ribeiro in his Portuguese Memoirs of 1871, as has been before mentioned, that "more than 1200' of strata (probably gravels) are there piled over the beds containing implements, the work of human hands"; and that "no traces of the rhinoceros, the elotherium or some animals like a small horse, have ever been found in deposits more recent than the basaltic overflows."

But it is not known exactly when these 1200' of "strata" which were so piled up were laid down, and neither is it at all known exactly when these basaltic overflows were exuded, and covered the "strata" or gravels. As has been shown in all volcanic eruptions of which we know, it was probably done within a year, and the gravels might have been piled up within one or two thousand years.

Professor Whitney says: "It is true that the evidence is fragmentary: still it may be said that the affinities of the animals found in the lower deposits would indicate a Miocene rather than Pliocene age. It seems that the Mastodon lived through a portion of the volcanic area, and flourished exceedingly down to a geologically recent period. The ele-

phant, on the other hand, has not been detected in the beds below the basalt.

"Taking all the evidence together, it is certain that the fauna (animals) of the gravel deposits is almost exclusively made up of extinct species, and we are justified in saying that it is far more Pliocene in its aspects than Post Pliocene or Recent."

Here is where it is believed that his supposition is incorrect. As appears from the Chart, where the huge animals such as the Mastodon are recorded as suddenly appearing in the time of the Champlain Period close to the Recent, so Professor Whitney says a little further on, that there is "clear proof of the contemporaneous existence of man with the mastodon, fossil elephant and other extinct species at a very recent epoch."

But admitting, as we do, that man began to live on the earth some time during the Glacial Period, as we have reckoned it, and as we believe with probable approximate truth, lasting about 20,000 years, that is, that he began so to live not over 15,000 years ago, which would be about 7000 or 8000 years before the termination of the Glacial Period: yet because the mastodon and some other gigantic animals were contemporaneous with him for some time into the Champlain and Recent Periods, this does not prove that he lived before the Glacial Period, or any time corresponding to the Pliocene Period of the Tertiary Era, but rather that he began life on the earth in the "Post Pliocene" or Quaternary or "Era of Man."

Prof. Whitney further says that "man did not differ from what he now is in the same region, that is, in California, and over the whole North American Continent."

But he continues thus:

"Evidence proves that man existed in California previous to the cessation of volcanic activity in the Sierra Nevada, to the epoch (or time) of the greatest extension of the glaciers in that region, and to the erosion of the present river canyons and valleys, at a time when the animal and vegetable creations differed entirely from what they are now, and when the topographical features of the State were extremely unlike those on the present surface."

We have admitted that men did exist before the last of the volcanic overflows, but we hold that the time of the cessation of these overflows not only is not known, but was probably far up in the Glacial epoch, perhaps near its termination; and since this must have been long after the glaciers' greatest extension (that is, their invasion, if that time in California was the same as in the other parts of the United States) we cannot admit that it was possible for man to have lived so far previous to their latter retreat, as was their greatest extension or invasion, say 10,000 years before. As to the Professor's belief and last statement that man was living previous to the erosion of the present river canyons and valleys, at a time when the animal and vegetable creations differed entirely from what they are now, and when the topographical features of the State were extremely unlike those on the present surface, we do not disagree with this view, because we have concurred already with the view that the mastodon and other gigantic animals began late, and continued for a time with man, but disappeared before long; and this may also have been the case with several vegetable species; and as we have stated, the erosion of the river canyons and valleys was very great, and at greatly changing

and different levels, much deeper at first and during progress than now.

Though Prof. Whitney regarded man's existence as very ancient, he regarded him then as now the same, that is, as man, and not as existing from some primordial stock (as the ape), from which man has been supposed by some to have been derived.

Professor G. F. Wright, in "The Ice Age in North America" (p. 533), says: "In Ohio as well as on the Atlantic Coast, man was an inhabitant before the close of the Glacial Period." Hence he goes on to say that "the flint implements known as Indian relics belong to the superficial or black soil, and they are found abundantly on the surface, more sparingly the deeper we go, until on reaching the gravel proper, they disappear entirely."

He continues: "The valley of the Delaware is a picture of human life during that period, substantially the same as that presented by archæologists of Europe for southern England and northern France in the declining years of the Glacial period" (that is, the latter part of the retreating by melting of the ice).

Speaking of California, he says: "A large number of human remains were found at great depths in this ancient higher-level gravel where not covered with lava, though some of them are doubtless of the same age with those from under Table Moutnain," that is, supposing that the basalt deposited upon Table Mountain was so placed in a short time, which it probably was.

Prof. Wright further says, p. 706 of his "Ice Age in N. America":

"In America, as well as in Europe, the advent of northern

cold, we may well suppose, directly led to the extinction of many animal species. In North America the camel, hippopotamus (or river horse), the rhinoceros (animal with horned nose), tapir, mammoth, horse, mastodon, were abundant at the opening of the Quaternary Age. Their complete extermination is one of the most startling facts in geology."

IX

Professor Louis Agassiz's Views

It is stated of the late Professor Agassiz, the great and world-renowned investigator and author of Cambridge, Mass. -professor of zo-ology and geology, or of "Natural History," in the Lawrence Scientific School of Harvard University, that "the collections he has made are the most complete extant, embracing the whole range of the animal kingdom." "From a general survey of species, Agassiz drew several very important conclusions respecting the relation of the Creator to the universe. The existence of a superior intelligence whose power alone could establish and sustain such an order of things, he considered to have been established by rigid demonstration, and on a truly scientific foundation." He believed that "species do not insensibly pass into each other; but each has its appointed period, and is not connected, except in the order of time, with its predecessor. He saw this first in his examination of fossil fishes, of which he exhibits and describes an immense number in his great work on the subject." "The fossil species," he says, "differ from those now living, and differ in different stages of the same formation, as well as in different formations, leading to the conclusion that our globe has been peopled by a series of creative acts."

This illustrious observer and author undoubtedly meant that entire species, that is, vast numbers of fishes and other animals in each class or species, differed from every other entire species. If one species had *developed* into another, there would be many individuals in a great variety of changes or stages of transition, and not whole classes or species similarly differing from other whole classes or species, as is the case.

Professor Agassiz regarded with great grief the advent and growth of the Darwinian school of evolutionists, and did all he could to stem the tide of what he considered as a most deplorable "heresy"; and his last public work was the preparation and delivery in 1873, in Cambridge, of a course of six lectures, in which he set forth, as clearly as he could, the truth about the matter, and opposed, with all his wealth of research and wisdom, the errors of the theory of evolution, and of those who were misled and seduced thereby.

\mathbf{X}

THE FUTURE LOT OF THE MATERIALIST

As it may be interesting and useful to know the probable lot of the materialist in the spiritual world, that is, of those who reject the Word of God, which teaches that man is the special creation and work of the Creator, and that therefore, he is not derived from any previous creation or creature by evolution or development, and who presumptuously substitute for the Divine teaching, their own alluring patchwork of fallacious notions and theories, I will endeavor to present the best product of my judgment from a careful study of the Word; and from what must be the facts of the spiritual world, as well as of the human mind and spirit in relation to them.

In the first place, we may know from the Word, that the spiritual heat or good love, and the light of true wisdom, of the spiritual world, and of the human soul and mind, proceed from the "Sun of Righteousness" (see Malachi IV. 2), which itself proceeds from the Divine Essential Spirit or the "Father," and thence, since His Resurrection, from the Body of the Lord Jesus Christ, and is called, as we receive its heat and light, the Holy (or proceeding) Spirit (see John VII. 39; XIII. 31, 32; XIV. 16–18; Rev. I. 8, 16–18; XXI. 23; XXII. 5).

They who reject the sunlight of God, and prefer their own phosphorescent self-derived light, which is really not light but darkness, it appears from the Word, are condemned (see John III. 18, 36; VIII. 12),—not indeed in the same manner or degree as those who are in fleshly lust, or who com-

mit murder, adultery or theft; but their condemnation—of its intellectual kind—is just as certain, if they proudly and presumptuously put themselves against God in thought, and reject His Word; and we learn from that Word that rebellion is sinful in the sight of God (see I Samuel XV. 23).

When, therefore, these materialists, with all others, come into the spiritual world consciously after death, they must necessarily find that the only real light is the light of God proceeding from the Sun of Righteousness and Truth, whose heat and light, as said just above, is the Divine and Holy Spirit of the Lord Jesus; for there is no other human light, that is, no other genuine illuminating light of the mind there or here; and this light is the same as is vouchsafed or given to us in the Word of God; and this light, which all who have access to the Word might have had and enjoyed if they had been willing to accept it, is what the mere materialists have rejected, proudly imagining themselves to be wiser than that.

Hence it would appear that they must inevitably do the same then and there as they have persisted in doing here in this external world. If they have hated or ridiculed and rejected the true light and the face of God and His Word, do they not prefer darkness and the phosphorescent light (the ignis fatuus) of their own mental eyes, and the false hypotheses which they have conjured up, and with the pseudo facts which they have tried to find in nature and the material world to confirm or substantiate them? And if so, are they not intellectually like those of whom it is said that they hide themselves in the dens and rocks of the mountains from the face of God (Rev. VI. 15, 16), since these correspond to the falsities and fallacies of their proud spirits and thoughts?

In the latter part of the Revolutionary War, when Benedict Arnold, then General Arnold, who by the friendship and kindness of the Commander-in-chief General Washington, who appreciated his former good work in the northern Canadian country, and had bestowed on him at his request the command of West Point with its fortifications,—when nevertheless the said Arnold, on account of his enmity against Congress, which had not appreciated his services, had done all that he could, by means of Andre the British spy, to deliver that highly-prized post to the British, and when General Washington arrived there had fled, and finally when he had renounced the United States as his country, and gone over to England, it was suggested that he might in consequence forever be terribly afflicted mentally by suffering the pangs of conscience for his perfidy, and that this would be worse for him than any other kind of punishment.

Washington, however, doubted that Arnold would so suffer mentally, explaining why he doubted it, by saying of him, "he lacks feeling."

And so, in regard to those merely natural scientists who do not believe in the Bible or the divinity of Christ, in explanation it may be said of them, that "they lack faith." And the wise Apostle Paul says, "Without faith it is impossible to please God" (Hebrews XI. 6). He knew that this was true. And we might add for their instruction what the Apostle Peter said concerning the Sacred Scriptures: "For the prophecy came not in old time by the will of man: but men spake from God, being moved by the Holy Spirit" (II Peter I. 21).

Jesus said to His disciples, when they saw that the figtree had withered away according to His judgment upon it because of its barrenness, symbolizing those who reject Him, and are consequently spiritually barren, "Have faith in God," or "of God" (Mark XI. 12–14, 20–22).

And to the *Jews*, who did not believe on Him, He said, "Search the Scriptures, for in them ye think ye have eternal life, and they are they which testify of Me" (John V. 39, 40).

And to *Thomas*, the disciple who doubted that the Lord had risen from the dead, but who afterwards, when with his opened spiritual eyes he saw Him in His risen Divine Spiritual body (see I Corinthians XV. 42, 44), acknowledged Him, saying, "My Lord and my God,"—to Thomas Jesus said, "Be not faithless but believing. Because thou hast seen Me, thou hast believed: blessed are they who have not seen, and yet have believed" (John XX. 26–29).

And finally, in Revelation I. 8, to John, who saw Him with his spiritual eyes in His wonderful Divine form, Jesus said: "I am Alpha and Omega, the beginning and the end, Who is and Who was and Who is to come, the Almighty."

XI

WARNING TO STUDENTS

HENCE I would warn those who are tempted to be seduced by the seemingly plausible hypotheses of the really blind materialists, to hold fast to the Word of God, not allowing the few portions of it which seem objectionable or

difficult to understand, to prevent them from receiving it as a whole, or the vastly larger portion, which should not be objectionable to any, and of which we can get some understanding, if we study it, and humbly ask the Lord to help and enlighten us; recollecting that the whole Word is primarily and in some parts solely parabolic or symbolic of spiritual or internal things—motives—goodness and truth against evil and falsity, and in general of matters relating to God and the human soul.

XII

GENERAL CONTENTS OF THE ENTIRE WORD OF GOD-

From the Most Ancient Time in "Eden," to the Glorious Future in the "New Jerusalem."

IT also gives us, in the literal sense, the history, states and complete courses, of the several churches or dispensations which have existed on the earth from the most ancient time even to the present and future, namely: (1) of the Most Ancient Church or Race from the beginning of humanity on the earth to the time of Noah; (2) of the Ancient Church from Noah to Abraham; (3) of the Israelitish Church from Abraham, Isaac and Jacob to the birth of Christ, (see Luke

XVI. 16); (4) of the First, "Primitive," or external Christian Church from its beginning to its end or Last General Judgment, predicted symbolically by the Lord in Matthew XXIV, Mark XIII, Luke XXI and Rev. VI, which, if we can credit the Swedish theologian and seer, Emanuel Swedenborg, took place in the eighteenth century, in the year 1757, during which year he assures us that, as a seer, he witnessed that great and important event of the world's history, transpiring in the spiritual world—the only place where it could occur, where all the deceased spirits are together.

Since the time of the Last General Judgment, when the spiritual world was cleared, and new light descended from above, evidenced by the greater freedom of men's minds, and the birth of the republics of the United States, France and others, and also by the enormous flood of wonderful and useful discoveries and inventions which have followed, every individual soul who enters the spiritual world at "death" must be judged according to his or her spirit and deeds, as we learn from Hebrews IX. 27, Romans XIV. 10, and Ecclesiastes XII. 14, as well as by our words, or our expressed and judged or unjudged thoughts—see Matth. XII. 36, 37.

And lastly (5) the Word depicts the Second, spiritual or internal, Christian Church, by the figure and symbol of the "Holy City, New Jerusalem, descending" or given us, as a system of true doctrine to be seen in and derived from the Word and a life according to it, "through the angelic heaven from God" (see Rev. XXI, XXII).

There may be, and I think there undoubtedly are, some, or even many, who are learned in one or more departments of science, and who respect the Word of God, and try to

follow its instructions as their rule and guide for life, in intention, thought, word and deed, but who have not carefully studied the hypotheses and facts in relation to evolution, sufficiently to form an opinion or judgment in regard to them for themselves, and who think that those who do accept them, and have written about them with apparent authority, must know; and so they may rely on them, and accept their statements, without giving much attention to the subject.

If this is the case with them, without any intention to reject the Word or deny its Divine authority, or to place themselves against it, they probably will be glad to know the genuine truth in regard to the subject when it is presented in such a way that they can understand it, either in this world, or in the other; and in such case they will welcome the light, and reject the fallacies of evolution as counterfeit.

I would earnestly recommend all scientists, as well as others, as did the illustrious Newton and Agassiz, and a host of other good and devout scientists who have acknowledged the Lord Jesus Christ to be God, to read the Word—to read it daily, and to "Search the Scriptures" as enjoined by the Lord (see John V. 39), and if possible to read the whole Bible through at least once—from beginning to end, which may be done in about one or two years, reading about three or two chapters a day.

There are some things which it would be well to recollect while reading the Bible through. In the first place, the books which are properly the inspired Word of God are, in the Old Testament, the five books of Moses, the book of Joshua, Judges, the two books of Samuel, the two books of Kings, the Psalms of David, the prophets Isaiah, Jeremiah, Lamentations, Ezekiel, Daniel, Hosea, Joel, Amos, Obadiah,

Jonah, Micah, Nahum, Habakkuk, Zephaniah, Haggai, Zechariah and Malachi; and in the New Testament, the four Evangelists or Gospels—Matthew, Mark, Luke and John, and the Apocalypse or Revelation. The other books in the Old and New Testaments are not parts of the Word of God, but are nevertheless good books for the church, and valuable in many respects.

In the second place, it would be well to bear in mind, as we read through the Bible, the nature of the successive dispensations, especially that the Jews or Israelites had a representative dispensation and ceremonial law, which they were enjoined most strictly to keep and perform, in default of a genuine self-denying and good life of love to God and the neighbor.

Moreover, it is true that the literal sense of the Word is largely in the language of appearance, for the sake of the simple and unlearned; and this should be constantly borne in mind in reading it.

A few examples from the Word will illustrate this. It is said in Psalm VII. 11 that "God is angry (with the wicked) every day." This is an appearance due to the contrariety of the wicked to the Divine Love and Goodness. In Genesis VI. 5-7, it is said that "Jehovah repented that He had made man" on account of man's wickedness, and that He would "destroy man" because of it. This also is an appearance describing the necessity of a General Judgment on the Most Ancient Church or people, and the necessary spiritual death or condemnation of the awfully wicked of those living in its last time, because of their direful contrariety to the Lord's Love and Goodness, and hatred of one another.

Again in Jonah III. 10, it is said that "God repented of the evil which He said He would do to" the people of Nineveh, because they repented and turned from their evil way, and from violence (see Jonah III. 4-8). This also is an appearance, meaning that in His Mercy the Lord warned them that if they continued in evil, they would be destroyed or would perish eternally by it, but that having heeded the warning, His Divine Love and Goodness were propitious and favorable to them.

Finally, we read in Isaiah XLV. 7, "I form the light, and create darkness; I make peace, and create evil; I Jehovah, do all these things." The truth here represented in the language of appearance is that it is the Lord's presence that brings spiritual light; and His absence, by our turning away from Him as the earth turns away from the sun at night, spiritual darkness; and conjunction and union with His Love and Goodness produces spiritual peace; but opposition to them produces evil.

It is the part of the wise man to see the real truth presented in the language of the apparent truth. The proper way is to humbly ask the Lord, before reading the Word, for enlightenment from His own Holy Spirit, to enable us to understand it, and for the purpose of applying it to our lives. If we are too proud or presumptuous to do this, or if we think we are able of ourselves to understand it without God's help, we can never rightly or interiorly understand its heavenly wisdom; for, as the Apostle Paul tells us (I Corinthians, II. 14), "the natural man receiveth not the things of the Spirit of God... neither can he know them, because they are spiritually discerned"; and the natural man pertains to all of us. But if we are willing to humble ourselves

before the Lord, and ask Him to enlighten us for the benefit of our souls, and for use to others, He will give us His Holy Spirit, that we may enter into the holy truths; and, as He says in John X. 9, "By Me, if any man enter in, he shall be saved, and shall go in and out, and find pasture"; for He has power to open our understanding that we may understand the Scriptures, as we read, in Luke XXIV. 45, that He did to His disciples of old, and as we read in Psalm XXXVI. 9, "in Thy light shall we see light."

And finally, by means of this spiritual light, by which we view the Lord God the Creator as the Author of all life and power, and form and development, and regarding all the natural facts so far as they can be known, we shall be enabled to detect the fallacies in the theories and hypotheses and doctrines of the evolutionists and mere materialists or pseudoscientists, insofar as they disregard and seek to evade or invalidate the Creator's constant influence and action throughout His whole universe, creating new and various species in the order of His Divine Providence, and afterwards creating new individuals according to those forms and natures which He has already created, co-operating with the parents, so that it seems to the foolish (see Psalm XIV. 1 and LIII. 1) that the offspring is their own work, and that God had no hand in it, which of course is a fallacy, and entirely contrary to the truth; and that this book on the subject may be powerfully helpful and conducive to a right view and understanding of it, is the earnest prayer of the author.

I will add, for the enlightenment of those who have not rightly understood the facts in regard to the Lord Jesus

Christ; His birth, His life on earth, and His Resurrection and Ascension:

First, it was necessary for Him to come on earth like every other man, though not by Joseph—his foster-father, but by Mary—a virgin, His natural mother, that though being from the Divine or Holy Spirit of God, He might be clothed with a human nature and material body, by which He seemed at first, and occasionally afterwards, to be separate from His Divine Father—His own Inmost Soul. Otherwise devils or evil spirits could not have approached and tempted Him, for His Divine Nature of Infinite Love and Wisdom would have destroyed them, as the earth would be instantly destroyed if it should enter the sun.

Secondly, it was necessary that during His life here, He should resist and overcome the temptations of the evil spirits. Otherwise He could not have brought down power through obedience to the precepts of the Divine Word, to give us to do the same.

Thirdly, if He had not thus gradually gotten rid of the lower nature, as He represented by saying to His natural mother Mary, "Woman, what have I to do with thee?" (see John 2. 4), and finally His material body, and brought down His Divine Humanity instead, He could not have united with, or ascended to, the Internal and Inmost Divine—God the Almighty. See (1) John 7.39, but (2) John 14.5-10, (3) 13.31, 32, (4) 16.33, (5) 20.17, (6) Matth. 28.16-20), (7) John 14.21 (8) Luke 24.49-51, (9) Mark 16.19, 20: verse 19 denotes His Omnipotence and government of all things in the Universe by His Spirit.

ALBERT P. SCHACK.

XIII

APPENDIX

Concerning new discoveries—relics of supposed men of the Pliocene and Glacial Periods; concerning the possible true location of the "Garden of Eden," and the "Flood"; the successive Gold, Silver, Copper and Iron Ages, with the character of the peoples of those Ages; and concerning the various nations descending from the original or first parents or race, or from the sons of "Noah," and their migration throughout Asia, Europe and Africa, and also North and South America,—thus throughout the whole earth.

THERE was found in 1907, (as stated in Chap. VIII, p. 82), near Heidelberg, Germany, a lower jaw merely, in an ancient river-drift of sand, supposed by some to be that of a man, and so named "the Heidelberg Man."

A skull, and some other bones, were found at Neanderthal on the Düssel River near Düsseldorf, Germany, supposed to belong to a man of what has been called the "Neanderthal race"; also a similar skull at Gibraltar; and these have been supposed to have overrun, as a race, at least Western Europe. But this people, as so discovered, with their flint weapons and the caves in which they dwelt, were regarded as being far later than those represented by the "Heidelberg Man."

The "Chellean" (French) and "Acheulean," "flint-workers," are supposed to have lived at the same period with the "Neanderthals," during a comparatively genial

climate; but during the cold season it is supposed that they were driven for shelter to caves.

This class—the "Neanderthals"—has been regarded as rather an inferior race, and to have been succeeded by a race greatly superior, called the "Cro-Magnons," from the name of a place where their remains were found (see Chap. VIII. p. 74), who were believed to have come from Asia, through northern Africa; and the "Grimaldi" type, a negroid and dwarf type, were supposed to have been brought from Africa into Europe by the "Cro-Magnons." This very superior race is supposed by some to have appeared in Europe "25,000 to 30,000" years ago; but being referred to the Champlain Period (see Chap. VIII, p. 75, and the Geological Chart), this time might really be not over 7000 to 9000 years ago.

The above may be said to be about the best the natural scientists, who have examined the evidence they have thought to have obtained from the strata in Europe, have produced to support their ideas that the lowest types of man were produced first, and were closely allied to the Ape or Gorilla; and that therefore, since after the inferior skeletons, or the skulls and bones they have found of them, superior races, such as those called "Cro-Magnons," succeeded,—that therefore our present best races of men must have come from the ape or gorilla, and these from the still lower classes of animals.

But these classes of men—mere natural scientists—do not take into consideration that before any low class of men who possibly may have lived, and traces of them found as they claim or think—that before their time there may have been and probably were created, as has been mentioned in chapter VIII, p. 75, a race most superior, in what the ancients called the "Golden Age," and in our Bible as they are called "Adam and Eve" or man and woman, or as we might say "mankind—male and female—of both sexes" (see Gen. V. I, 2).

Let us notice first that when the first people of mankind were created, as the Word of the Lord tells us in the 1st Chapter of Genesis, "The Lord God commanded them to have dominion" over all the animals (v. 26); and then we are told moreover (v. 27) that "God created man in His own image; male and female created He them."

Hence, according to this account, from the very first, man was created superior to all the animals or beasts, and was commanded to be superior to them—every one of them—"fish, fowl, all cattle, over all the earth, and over every living thing that creepeth or moveth upon the earth." Evidently therefore God created man distinct from the mere animals, and of the highest character, truly celestial or heavenly men and women, in His own image, or as St. James (one of the brothers of the Lord) says (James III. 9), "after the similitude of God."

And after He had thus created man, so nobly and so worthily, we read (Gen. II. vv. 19, 20) that "God brought every beast, cattle and fowl to man (Adam), and whatsoever man (Adam) called every living creature, that was the name thereof."

That is, as the first real men were lovely, so also they were wise or intelligent, and intuitively from the Lord knew the quality of every beast or animal—its true use, nature or

character. This also showed plainly that they were no beastly or degraded beings, as men and women, that God created in the beginning, but the most exalted of beings, genuine "angels of God," no doubt truly beautiful, not only in hearts and minds, but also in their human forms, and like little children -children of God, "naked and not ashamed" (Gen. II. 25), because there was nothing to be ashamed of,—as the ancients called it "The Golden Age"; and this is why it has been said by some (see II Peter II. 4; Jude, v. 6) that "the angels fell from their first estate," that is, the first angelic men and women. And so, probably after some generations, represented by the descent of mankind (Adam and Eve) into the natural mind out of the celestial or heavenly, it is said (Gen. VI. 5) that "God saw that the wickedness of man was great in the earth, and that every imagination of the thoughts of his heart was only evil continually."

And then the "flood" came, wherever that naturally was, possibly (as said in Chap. VIII, p. 76) throughout Palestine, Syria, Mesopotamia, Assyria and vicinity, and the territory south of or about Mt. Ararat (see Gen. VIII. 4), or western or southwestern Asia; or part of what has been called Turkey in Asia, west of Persia, and north and west of Arabia. Thus there was a great retrograde. Men finally became like beasts, and even worse than beasts; and there was a great destruction of their natural lives, except those represented by Noah and his wife, and his three sons.

It is true that some of the last of the mere animals or beasts, created before the genuine angelic men and women called "Adam and Eve" of the "Golden Age," were mon-

keys, apes and gorillas; but not a single one of them, as we now have samples of them, can speak as men, or read the Word of God, or can learn to do so; nor do they care, or can they try to learn or to keep the commandments of God and so be regenerated, or born from above, or from His Holy Spirit (see John III. 3-8), which every negro and even Indian can do in time, and many have done. This is because the necessary sort of brains and so minds have not been given to them by the Creator or the Almighty, and He does not expect or require them to do so, as He does of us human beings, whom He has so gifted with the necessary kind of brains, and so minds and souls (see Micah VI. 8).

Noah, followed by his sons or descendants, Shem, Ham and Japheth, began what was called the "Silver Age," lovers of the truth, especially from Japheth,—the "Aryans," and who might have been somewhat exemplified by the "Cro-Magnons," who have been classed and credited as far superior to the former inferior classes of supposed men, and may have been of that second or Silver Age, from which, as above-said, Shem and Japheth with their posterity proceeded (see Gen. X and XI), while the "negroids" who were brought from Africa would naturally be from the people represented by Ham and his descendants.

After the "Silver Age," when people thought less interiorly, but were more in the natural mind, though having a charitable and thus good principle and endeavor of that lower degree, the Age called the "Copper Age" probably followed, named from the red color of that metal and its somewhat soft quality.

And still later, when this natural good and charitable principle generally ceased, and instead, a hard, cold, natural principle took possession of men's minds, and a sharp, critical and severe sight and nature resulted, what has been called the "Iron Age," corresponding to the hard quality and somewhat white color of that metal—probably appeared.

Of course, it is impossible for anyone to tell how the lower jaw found near Heidelberg ever got there where it was found. A supposition of any kind in regard to it is a mere guess.

The proposition which the naturalist and evolutionist, finders of the small fragment or of a lower jaw, seek to establish and to be accepted by the people of the world as truth, which is that this small fragment belonged to a human being, and showed that such a one, or a number of such human beings, lived on the earth "375,000," or even 150,000 years ago, is far too great a proposition or assertion to rest upon a foundation so minute and practically infinitesimal, as a lower jaw and its teeth. It may well be asked of those who make the proposition, "How do you know that this belonged to a human being, and lived so long ago?" The answer must be, "We do not know; we only suppose that it was so from its location near the remains of extinct species of animals." Our reply might then be "Then you have no right to call it 'The Heidelberg Man,' or any man at all." As we have said, it is only a lower jaw, with its rear unlike that of a human being, and it probably was that of an ape, by some called an "ape-man," "a woolly, strange-looking, inhuman creature."

Again, in regard to the bones of the "Neanderthal race," it appears that even these so-called men stooped forward and could not hold their heads erect, as all living men in health do or can.

But supposing that they were men, as has been inferred or concluded by many, on account of the flint implements, etc., found with them, then, according to the doctrine of the first men being of the Golden Age, the best and most superior people—created in the image of God, those of the "Neanderthal race" would not have been before these, or as the beginning of that first Age, but really coming after them by degeneration or degradation, as the degenerate part of that Age.

It may be asked, "Why are none—no remains—found of the people of the Golden Age, and the 'Garden of Eden,' if it existed?" Probably there were comparatively few of this race at first. And we must recollect that the first race, that is, their posterity, retrograded, became very degraded, evil, and as we have said, many of them worse than beasts, so that there was a flood of falsity and also of water, which destroyed almost all the people, and no doubt most of their bodies (see in Chapter VIII, p. 76).

It is most likely that the Lord would create men and women where and when there was genial climate, so that there could be a "Garden of Eden" or "pleasantness," where "every tree good for food" could grow. Such a place there was, without glaciers, in Mesopotamia or Assyria, by the Euphrates and the Tigris ("Hiddekel") Rivers and two others (see Genesis II. 10-14), including perhaps the "holy

land of Canaan" or Palestine and Syria (see Zechariah II. 12), embracing perhaps 750 miles from northwest to southeast or from the Black Sea to the Persian Gulf, and perhaps about 500 miles from northeast to southwest, or between the Caspian Sea and the Mediterranean. The climate may have been moist, though now dry. It was probably about 10,000 to 15,000 years ago (see Chap. VIII, p. 84).

As regards the Geological times or Periods of the beginnings of men and women, or as we have depicted of the "Golden Age," followed by the "Silver Age," they were probably those of the Post Pliocene, or "Pleistocene" of the Quaternary or "Era of Man," near the close of the Glacial Period (as presented in Chap. VIII, p. 93).

Thus in the valley of the Tigris (or "Hiddekel") and Euphrates, and the "Pishon" and "Gihon," northwest of the Persian Gulf (see Gen. II. 8–14), possibly extending through "Canaan" or Palestine, or as above-said in Southwestern Asia, or the south and east portion of what has been since called "Turkey in Asia," which was untouched by the Glaciers and their invasion, and where were the earliest traces of civilization, the human race in its purity was begun, approximately as above-said, 10,000 to 15,000 years ago.

Southwestern Asia seems to have been, therefore, the natural location of the Garden of Eden in the Golden Age of mankind, where, from the Loving-kindness and Divine Wisdom and Power of the Almighty, the human race in its first, best and practically perfect condition and estate was created, and from whence the various races represented by the three sons of Noah,—Shem with the Semitic descendants or races, including Hebrews, Arameans, and Arabs; Japheth with the Aryan races in Asia and Europe and perhaps in

Egypt, as well as the Indians and other inhabitants of America, reaching hither in all probability from Asia, eastward through Behring Strait, or Behring Sea by way of the Aleutian Islands, to and through Alaska; and *Ham* with his progeny in Africa: all these having developed and migrated thus to all parts of the world.

We should consider in this matter, the kindness and wisdom of God; and we should also recollect that even the "Neanderthal" race were thought, by some of those who regard them as our early ancestors, to have been as gorillalike monsters with hairy bodies, probably like the thick covering of the Polar bears, for protection against the cold or freezing temperature of the Ice Age, having low brows, ape-necks, stooping forward and unable to stand erect, and being chinless, probably incapable of speech. Does this look as if it were the proper work for man of the omniscient and prefect Creator, Who gives us in the beginning of His Word (in Genesis I, II) an account of a truly Golden Age, in which He classed His work, especially of the original creation and beautiful life of man at first, in the image and likeness of God, as "very good"?

Moreover, we should consider and recollect that this account in Genesis, and the following accounts of the Bible, make a Divine book, dictated by God the Creator through men chosen as prophets and amanuenses, who were neither able, nor would they have dared, to write, by their own power, such a book or such an account. For if any men felt an inclination to do so, such men, being holy and truly reverent men, would have refrained from attempting to do

it, knowing that it would be profanation, and impossible for them, without having authority and summons for the work by the Lord God Himself (see Isaiah VI. 8-13). And though the serpent that talked with the woman (see Gen. III. 1-5) was, in the internal or spiritual, and thus the primary sense, the sensual, merely natural and fleshly principle which drew the people of the Golden Age down, and which made it necessary for the Lord to warn or instruct that people, and all human beings, to have dominion over all animals, or animal principles or impressions in our being or nature (Gen. I. 26-28), and also against receiving and relying on our own knowledge as gospel or the truth (Gen. II. 17); yet it is also true in the natural or lower or literal sense, that God has given man a character, highness, elevation or exaltation of brain, and mind within it, to be entirely above every mere animal, which He has not thus endowed, and which is evident not only from his speech, but from his possible thought, understanding and devout worship, and also by his ability to invent, and apply to useful purposes, things which are absolutely and altogether impossible for any mere animal, from lowest to highest, including all kinds of apes, to accomplish and produce, and so to do, any genuine good in the world.

The naturalists or evolutionists do not seem to have noticed or reflected upon the law of Divine Providence that every individual must be created from seed, thus a sheep from seed of a male sheep in the womb of the female, the horse, male or female, from the seed of the horse, the ape from the seed of the ape, and the child of the man or woman from the seed of the man in the womb of the woman. Nor can an ape by its seed produce a single child which can become

a man, nor can a single man be produced in any other way than from the seed of a man; not from the seed of a horse, ape, or any other mere animal. Consequently it is foolish to suppose that any ape, orangoutang or gorilla could be changed into, or in any way or time, though it should live a million or a billion years, could produce any man, since such production could only come from the seed of a male man through the womb of a woman, or female of mankind.

The only two exceptions to this law, that the creation and birth of human beings into the natural or material world must be from seed of a man through the womb of woman, were first, in the original creation of the first men and women or race of mankind, male and female, by God (see Gen. I. 27; V. 2; Matth. XIX. 4; Mark X. 6), when there were no men to furnish seed, and no women to receive it in their wombs; and second, in the birth of Jesus Christ from the Holy Spirit of God, through some material substance furnished therefrom (even as the bread from the Lord's Spirit and hands fed the 4000 and 5000), and not from Joseph or any man, in the womb of Mary, who was a Virgin, until she had borne Him (Jesus, the Christ or Messiah), as "her firstborn son" (see Matth. I. 25; Luke II. 7), and until He had been delivered and brought into the world as the Son or Humanity of God; after which she produced four human sons, and at least two daughters from Joseph (he acting only as the foster-father of Jesus), "brothers and sisters" of the Lord Jesus (see Matth. I. 20-25; XIII. 55, 56; Acts I. 14; Luke I. 26-31, 34, 35, 39-47; II. 8-14; 25-32).

The late discovery, in Galilee of Palestine, of the skull

of an ancient "man," "found in a cave near the sea of Galilee," may not conflict with anything presented above.

If the skull is that of one of the Neanderthal race, if it was not that of a man, but of an ape, the deduction or inference therefrom would only be that he or others of that race or species were in that southwestern Asiatic region as well as in Europe or elsewhere.

The three depressions in the skull supposed by some to be from a trepanning operation "with a flint instrument by a Neanderthal surgeon," are extremely unlikely to have been operated or caused by such means or such beings.

If the skull is that of a man—a human being, the estimate or guess of 40,000 years ago, supposed to be about the time of his existence on earth, is I think far too ancient. As the reporting correspondent, from his point of view, well wrote, "apparently man has come by his present form in a much briefer space of time than many of us were prepared to allow only a year or two ago."

As to the exact size, space or extent in any direction of the "Garden of Eden," it is of little importance. The principal point of interest is, as we have said, that it probably included Palestine or the "Holy Land," and the land about the Euphrates and Tigris Rivers; in general, southwestern Asia, in the region or neighborhood of "Turkey in Asia." The distance from southeast to northwest, or southwest to northeast, whether from 100 to 750 miles, is of no great consequence.

A. P. S.

New York City, 1925.

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